WINZLER & KELLY
CONSULTING ENGINEERS

Ref: 02343-05001-32003

February 28, 2006

Dr. Richard Mani
8 Pelican Point Road
Belvedere, CA 94920

Re: Quarterly Groundwater Monitoring Report – Fourth Quarter 2005, Mani Site, 200 Talmadge Drive, Santa Rosa, California, NCRWQCB Case No. 1TSR279

Dear Dr. Mani:

This report presents Winzler & Kelly Consulting Engineers' (Winzler & Kelly's) results of the fourth quarter 2005 groundwater monitoring and sampling performed at the site located at 200 Talmadge Drive, Santa Rosa, California (Figures 1 and 2) on December 12 and 13, 2005. Also, provided is a summary of the third nutrient injection activities.

FOURTH QUARTER GROUNDWATER MONITORING AND SAMPLING ACTIVITIES

The Site-Specific Sampling Procedures, provided in Appendix A, describe in detail all of the monitoring and sampling activities that were performed at the site on December 12 and 13, 2005. A brief summary of these activities is also provided below.

FIELD ACTIVITIES

Personnel Present: Winzler & Kelly's Environmental Engineer, Pon Xayasaeng, performed all the groundwater monitoring and sampling activities.

Dissolved Oxygen: On December 12, 2005, dissolved oxygen (DO) concentrations were measured in each monitoring well at the site. The measurements were obtained using a calibrated DO meter while the biosparge system was operating.

Biosparge Shutdown: On December 12, 2005, the biosparge system was shutdown following DO measurements to allow groundwater levels to equilibrate.

Depth-to-Water: The depth-to-groundwater (DTW) was measured in each monitoring well on December 12, 2005, while the biosparge system was operating. DTW was measured again on December 13, 2005, while the biosparge system was turned off and groundwater levels had equilibrated to atmospheric pressure for at least 30 minutes. The measurements were obtained using an electronic water level meter.

Purging: On December 13, 2005, an electronic 12-volt 1.5-inch submersible pump was used to purge each monitoring well at the site. A copy of each Well Sampling Data Sheet is provided in Appendix B.

Groundwater Sampling: Groundwater samples were collected on December 13, 2005, from each monitoring well at the site. New disposable bailers were used to collect and transfer the groundwater samples from each monitoring well into the appropriate, laboratory-supplied, certified clean sample containers.

Chemical Analysis: Analytical Sciences Laboratory (Analytical Sciences) of Petaluma, California (a California-certified laboratory) analyzed the groundwater samples for total petroleum hydrocarbons as gasoline (TPH-G) and as diesel (TPH-D) by EPA Method 8015M, for benzene, toluene, ethyl benzene, and total xylenes (BTEX) and oxygenated fuel additives by EPA Method 8260B, for nitrite as nitrogen, nitrate as nitrogen, and Phosphate by EPA Method 300, and for ammonia as nitrogen by EPA Method 350.3.

GROUNDWATER MONITORING AND SAMPLING RESULTS

The groundwater elevation data and groundwater flow direction are presented in Tables 1 and 2. A groundwater contour map illustrating the groundwater elevation contours at the site on December 13, 2005, is provided as Figure 3. As shown on Figure 3, the groundwater at the site was flowing towards the southwest to west at a gradient varying between 0.007 ft/ft upgradient and 0.01 ft/ft downgradient.

On December 12, 2005, the DO concentrations measured ranged from 1.64 to 7.54 mg/L, which is an increased from the previous monitoring and sampling event. The DO concentrations indicate that the biosparge system is effectively introducing oxygen into the aquifer downgradient of the former underground storage tanks (USTs). The DO results are summarized in Table 3.

The first nutrient injection was performed on September 22, 2004 in which a total of approximately 9 pounds (lbs) of nutrients were injected into sparge points SP-3, SP-4, and SP-5. Following the September 22, 2004 nutrient injection, it was observed that nutrient concentrations were depleted or reduced to the baseline concentrations within 2 to 3 months.

Based on the results of the first nutrient injection, the quantity of nutrients injected was increased to 15 lbs and injected into sparge points SP-2, SP-3, SP-4, and SP-5 during the second nutrient injection performed on July 21, 2005. The nutrient concentrations were depleted or reduced to the baseline concentrations within 1 to 2 months.

The third nutrient injection was performed on December 6, 2005. A total of 20 lbs of nutrients were injected into sparge points SP-2, SP-3, SP-4, and SP-5. Once again the quantity of nutrients injected was increased due to the rapid depletion rates of the first and second nutrient injection events. Following the December 6, 2005 nutrient injection, groundwater samples were collected and analyzed on December 13, 2005. Analytical results from the December 13, 2005 groundwater samples indicated an increase in

nitrate as nitrogen concentrations in the monitoring wells MW-1 and MW-4 at 140 and 91 mg/L, respectively. These high concentrations of nitrate as nitrogen were confined in the areas near the nutrient injection points and did not appear to migrate outside the plume area.

On January 9, 2006, grab groundwater samples were collected from MW-1, MW-4, and MW-5 and analyzed for nutrient concentrations. Analytical results of the January 9, 2006 groundwater samples quantified nitrate as nitrogen in monitoring wells MW-1, MW-4, and MW-5 at 4.4, 1.8, and 0.15 µg/L, respectively. Nitrate as nitrogen concentrations during the January 9, 2006 sampling indicated that nutrients depleted or reduced to the baseline concentrations within 1 to 2 months. Furthermore, the increase in nutrient depletion rate suggests an increase in microbial activity and petroleum hydrocarbon digestion since the first nutrient injection. The results are summarized in Table 4.

During the December 13, 2005 sampling event, petroleum related constituents were only quantified above the laboratory's reportable detection limits (RDLs) in groundwater samples collected from MW-1 and MW-5. The TPH-G concentration of 240 µg/L in MW-5 during this sampling event is similar to previous sampling events. Aerobic biodegradation near MW-5 is slower because MW-5 is located on the outer limits of the biosparge radius of influence (indicated by low concentrations of DO and nutrients following each nutrient injection). The TPH-G concentration of 170 µg/L in MW-1 (located within the biosparge radius of influence) has once again decreased significantly since previous sampling events and is the lowest concentration in this well to date. TPH-G concentrations in MW-4 have continued to meet the Regional Water Board's Water Quality Objectives. Continual reduction of TPH-G concentrations in monitoring wells MW-1 and MW-4 indicates that aerobic biodegradation has considerably increased with the increase of air flow to the aquifer combined with the quarterly injection of nutrients.

Laboratory analysis of the groundwater samples collected on December 13, 2005, from monitoring wells MW-2 and MW-6, did not quantify any petroleum related hydrocarbons above the laboratory's RDLs. The analytical results are summarized in Table 5. Figure 4 depicts the TPH-G, benzene, and methyl tert-butyl ether (MTBE) concentrations that were detected in the groundwater samples collected on December 13, 2005.

The laboratory QA/QC included the use of method blanks to exclude false-positive analyses and the use of laboratory control samples to evaluate the percentage recovery of known analyte spikes. The recovery percentages for all of the sample analytes were within acceptable ranges. Constituents of concern were not detected in the analysis of the trip blank. The complete laboratory report, QA/QC data, and the chain-of-custody form are included in Appendix C.

GEOTRACKER DATA ENTRY

As required by Assembly Bill AB2886, Winzler & Kelly has submitted the second quarter 2005 quarterly groundwater monitoring report, the third and fourth quarter EDF reports, and the well measurement file for the December 13, 2005 groundwater sampling event to the GeoTracker database. Copies of upload verifications are included in Appendix D. Winzler & Kelly will submit this report to the GeoTracker database upon completion.

RECOMMENDATIONS

The remediation system has had very little influence on the hydrocarbons in the groundwater in the area around MW-5. Winzler & Kelly recommends the addition of a sixth sparge point (SP-6, Figure 4) to speed the cleanup on the neighboring parcel. Access will be required, but a junction box and piping are in place and can easily be extended past SP-5. The existing remediation system can handle the expansion. SP-6 would be installed in accordance with the approved Winzler & Kelly August 2003 Remedial Action Plan and System Design procedures for sparge point installation. Nutrient injections will also be added to this point on a quarterly basis. Winzler & Kelly requests concurrence from the NRWQCB prior to commencing with this work.

Winzler & Kelly will continue to perform quarterly groundwater monitoring, nutrient injection, and sampling activities at the site. The first quarter 2006 monitoring and sampling and nutrient injection events are scheduled for March 2006. A first quarter 2006/annual 2005 monitoring report will follow the monitoring and sampling event and will include concentration trends for 2005, and also include the biosparge system operation and maintenance data.

Should you have any questions or comments regarding this project, please contact Ms. Elizabeth Cargay, Project Manager, at (707) 523-1010.

Sincerely,
WINZLER & KELLY

Pon Xayasaeng
Environmental Engineer

Kent O'Brien, PG, CEG
Senior Project Geologist

PROFESSIONAL GEOLOGIST
KENT O'BRIEN
No. 2132
CERTIFIED
ENGINEERING
GEOLOGIST
STATE OF CALIFORNIA

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Attachments

Figures:

- Figure 1 – Vicinity Map
- Figure 2 – Site Map
- Figure 3 – Groundwater Contour Map
- Figure 4 – Petroleum Hydrocarbon Concentrations in Groundwater

Tables:

Table 1 – Water Level Data and Well Construction Details
Table 2 – Groundwater Gradient and Flow Direction
Table 3 – Dissolved Oxygen and Indicator Parameters
Table 4 – Analytical Results of Nutrient Compounds
Table 5 – Analytical Results of Groundwater Samples

Appendices:

Appendix A – Site-Specific Sampling Procedures
Appendix B – Well Sampling Data Sheets
Appendix C – Analytical Laboratory Reports
Appendix D – GeoTracker Upload Verifications

c: Mr. Jim Tischler, North Coast Regional Water Quality Control Board, 5550 Skylane Boulevard, Suite A, Santa Rosa, CA 95403

Mr. Don Wehr, 1839 Bella Vista Avenue, Santa Rosa, CA 95403

Figures

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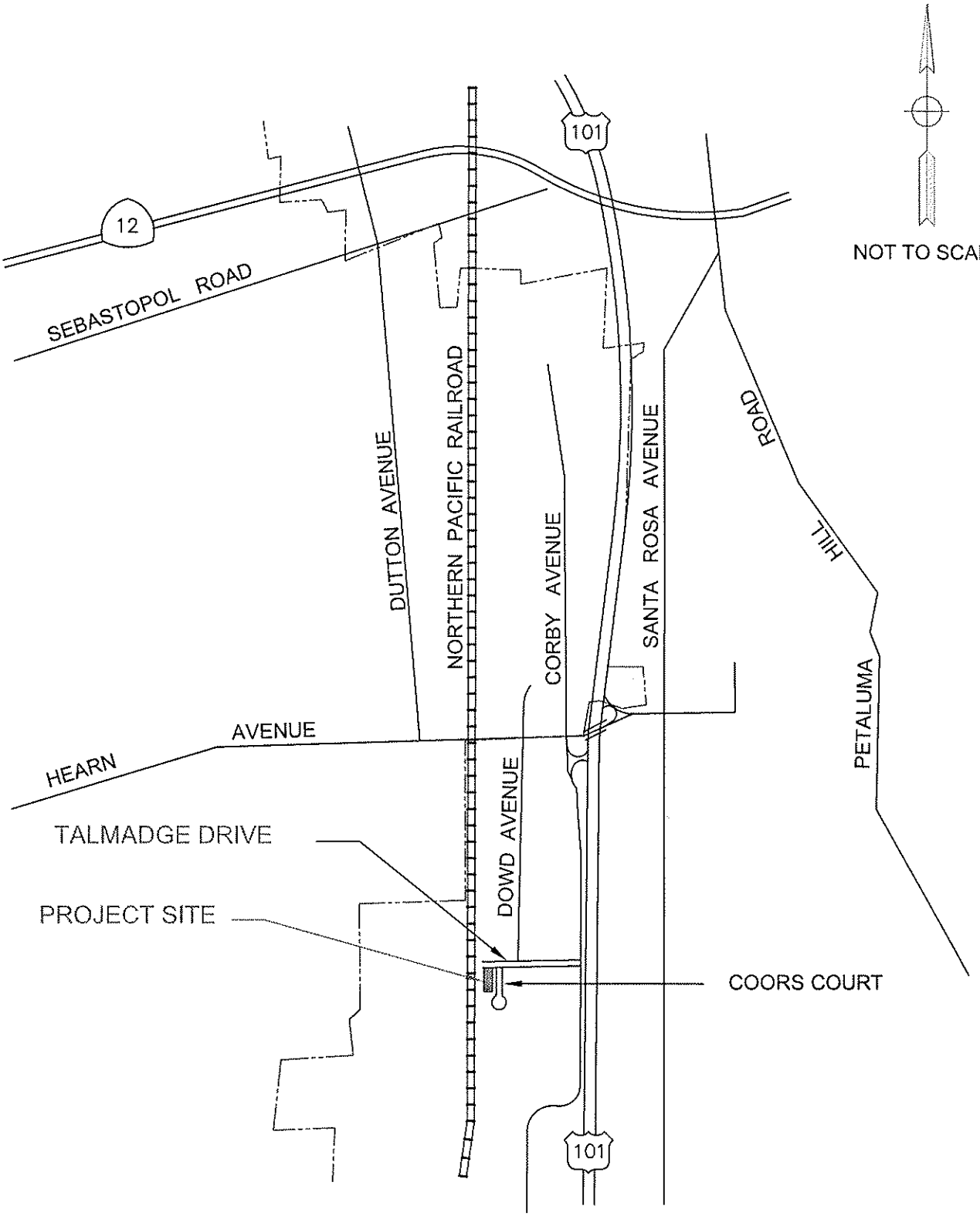

VICINITY MAP
MANI SITE
200 TALMADGE DRIVE
SANTA ROSA, CA
FIGURE 1

WINZLER & KELLY
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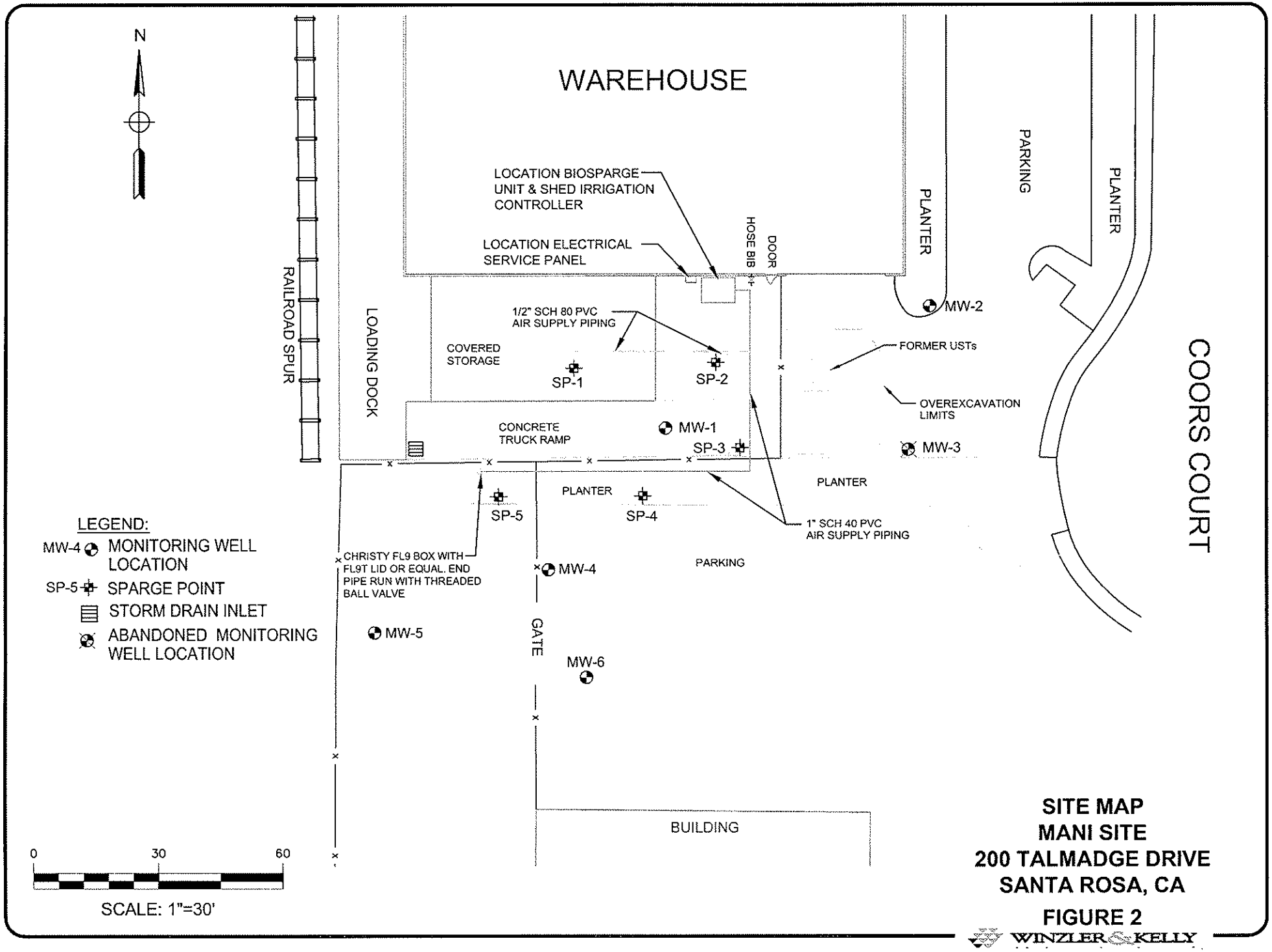

SITE MAP
MANI SITE
200 TALMADGE DRIVE
SANTA ROSA, CA

FIGURE 2

WINZLER & KELLY

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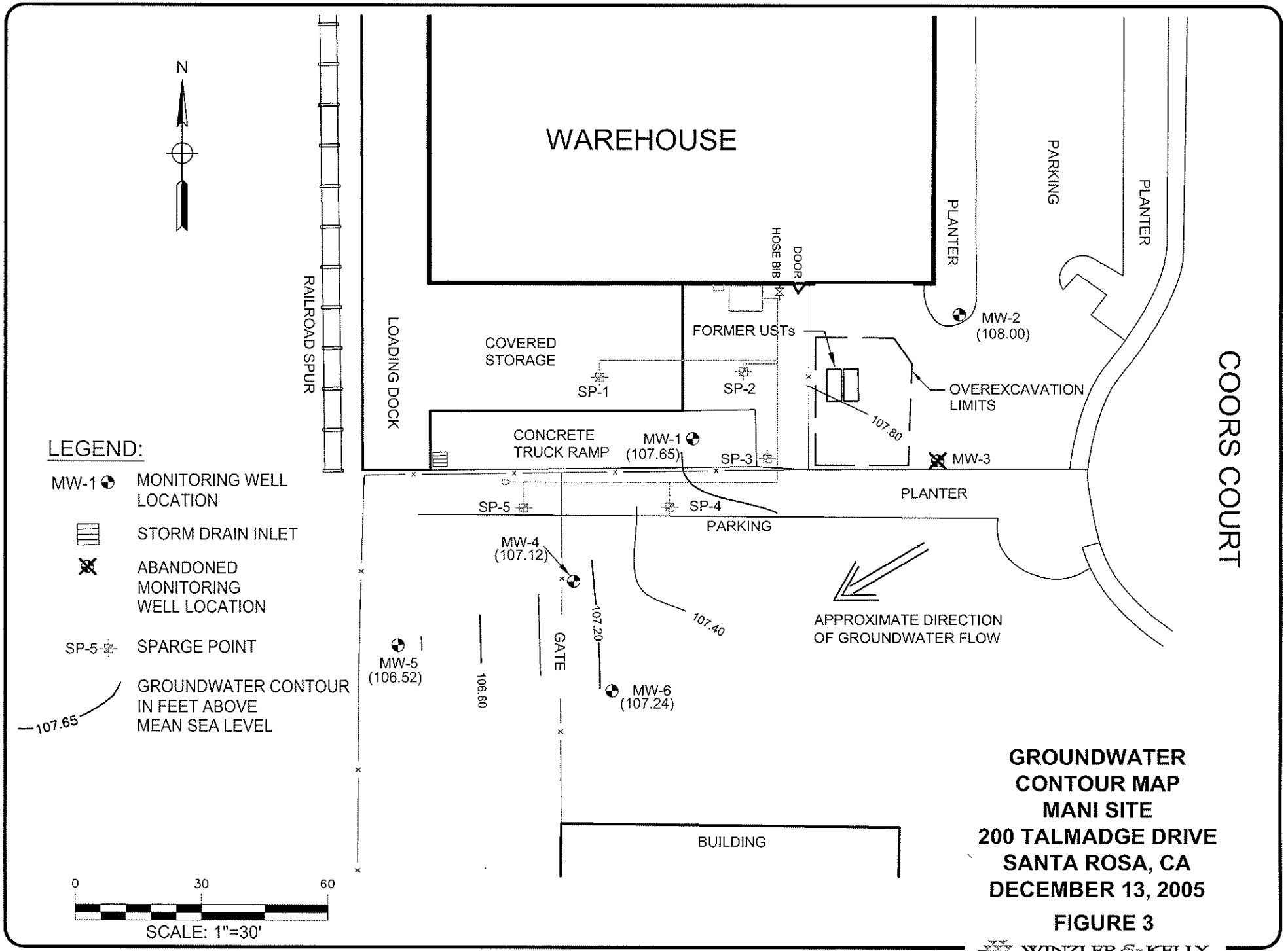

GROUNDWATER CONTOUR MAP
MANI SITE
200 TALMADGE DRIVE
SANTA ROSA, CA
DECEMBER 13, 2005

FIGURE 3

WINZLER & KELLY
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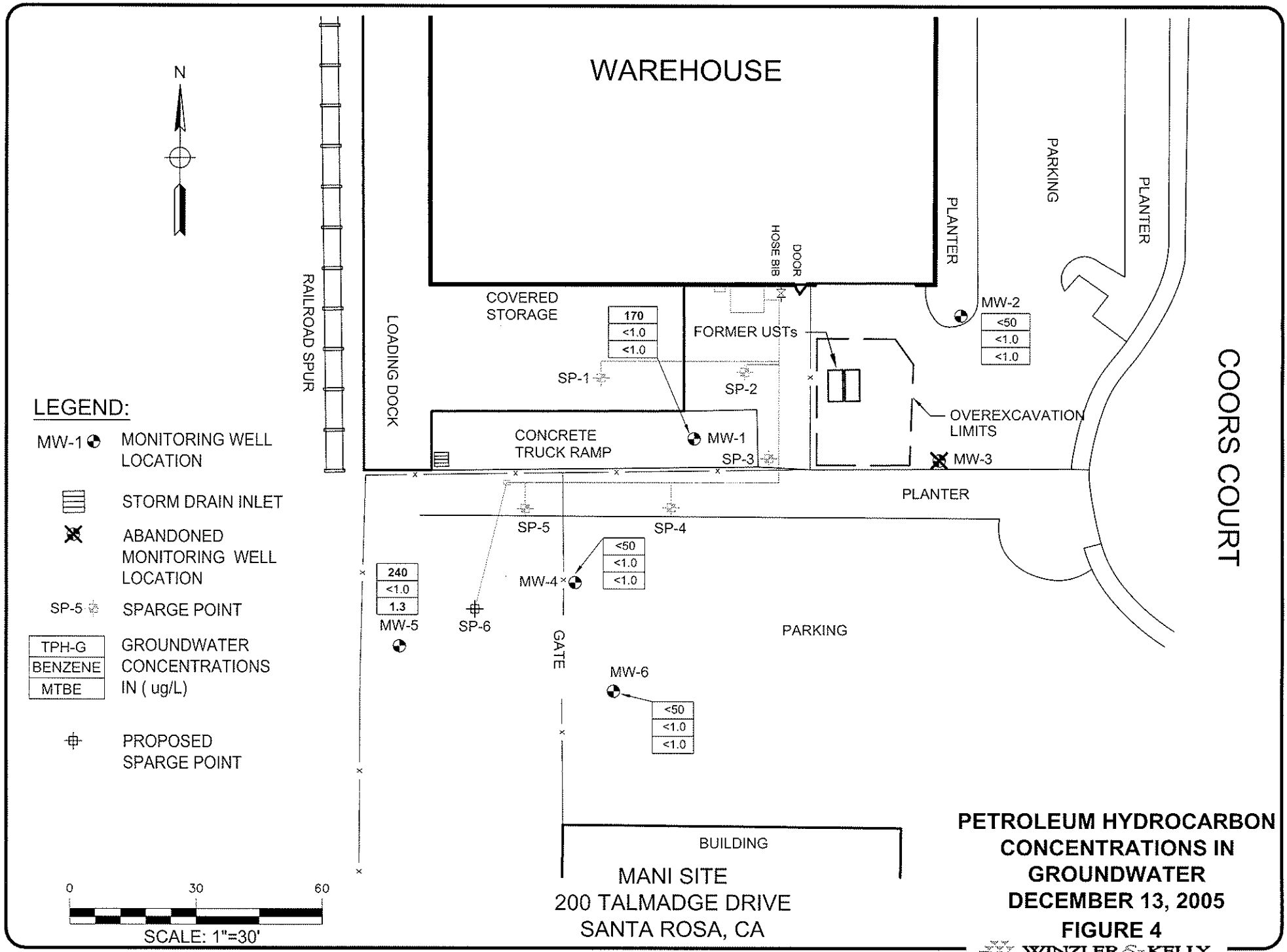

MANI SITE
200 TALMADGE DRIVE
SANTA ROSA, CA

PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUNDWATER DECEMBER 13, 2005

FIGURE 4

WINZLER & KELLY
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Tables

Table 1. Water Level Data and Well Construction Details

Mani Site

200 Talmadge Drive, Santa Rosa, California

Well ID	Date	Groundwater Elevation (Mean Sea Level)		Depth-to-Water		Top of Casing Elevation (Mean Sea Level)	Free Product Thickness	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval
		System On	System Off	System On	System Off		feet			
MW-1	2/2/1995	NM	110.41	NM	8.25	118.66	-	10.0-25.0	8.0-25.0	6.0-8.0
	3/19/1998	NM	111.51	NM	7.15		-			
	9/9/1999	NM	106.31	NM	12.35		-			
	10/11/1999	NM	105.65	NM	13.01		-			
	11/17/1999	NM	105.24	NM	13.42		0.00			
	12/15/1999	NM	105.08	NM	13.58		0.00			
	1/12/2000	NM	104.77	NM	13.89		0.00			
	2/10/2000	NM	106.70	NM	11.96		0.00			
	3/15/2000	NM	111.09	NM	7.57		0.00			
	4/13/2000	NM	109.87	NM	8.79		0.00			
	5/12/2000	NM	109.41	NM	9.25		0.00			
	6/15/2000	NM	108.39	NM	10.27		0.00			
	7/14/2000	NM	107.24	NM	11.42		0.00			
	3/6/2001	NM	108.06	NM	10.63	118.69	0.00			
	6/6/2001	NM	106.70	NM	11.99		0.00			
	9/12/2001	NM	104.58	NM	14.11		0.00			
	12/13/2001	NM	106.28	NM	12.41		0.00			
	3/21/2002	NM	110.54	NM	8.15		0.00			
	6/14/2002	NM	108.09	NM	10.60		NM			
	9/10/2002	NM	105.69	NM	13.00		NM			
	12/11/2002	NM	104.81	NM	13.88		NM			
	3/25/2003	NM	109.76	NM	8.93		NM			
	6/27/2003	NM	109.07	NM	9.62		NM			
	10/1/2003	NM	106.05	NM	12.64		NM			
	12/12/2003	NM	106.24	NM	12.45		NM			
	3/26/2004	NM	110.34	NM	8.35		NM			
	7/9/2004	NM	107.43	NM	11.26		NM			
	9/21/2004	NM	105.63	NM	13.06		NM			
	12/20/04 & 12/21/04	106.15	106.09	12.54	12.60		NM			
	3/16/05 & 3/17/05	110.60	110.58	8.09	8.11		NM			
	6/9/05 & 6/13/05	110.69	110.54	8.00	8.15		NM			
	9/28/05 & 9/29/05	106.88	107.44	11.81	11.25		NM			
	12/12/05 & 12/13/05	109.49	107.65	9.20	11.04		NM			
MW-2	2/2/1995	NM	111.08	NM	9.27	120.35	-	10.0-25.0	8.0-25.0	6.0-8.0
	3/19/1998	NM	112.08	NM	8.27		-			
	9/9/1999	NM	106.72	NM	13.63		-			
	10/11/1999	NM	106.04	NM	14.31		-			
	11/17/1999	NM	105.59	NM	14.76		0.00			
	12/15/1999	NM	105.37	NM	14.98		0.00			
	1/12/2000	NM	105.04	NM	15.31		0.00			
	2/10/2000	NM	107.00	NM	13.35		0.00			
	3/15/2000	NM	111.39	NM	8.96		0.00			
	4/13/2000	NM	110.24	NM	10.11		0.00			
	5/12/2000	NM	109.80	NM	10.55		0.00			
	6/15/2000	NM	108.78	NM	11.57		0.00			
	7/14/2000	NM	107.64	NM	12.71		0.00			
	3/6/2001	NM	108.33	NM	12.04	120.37	0.00			
	6/6/2001	NM	107.05	NM	13.32		0.00			
	9/12/2001	NM	104.89	NM	15.48		0.00			
	12/13/2001	NM	106.54	NM	13.83		0.00			
	3/21/2002	NM	110.80	NM	9.57		0.00			
	6/14/2002	NM	108.45	NM	11.92		NM			
	9/10/2002	NM	106.07	NM	14.30		NM			
	12/11/2002	NM	105.11	NM	15.26		NM			
	3/25/2003	NM	110.10	NM	10.27		NM			
	6/27/2003	NM	109.55	NM	10.82		NM			
	10/1/2003	NM	106.47	NM	13.90		NM			
	12/12/2003	NM	106.62	NM	13.75		NM			
	3/26/2004	NM	110.68	NM	9.69		NM			
	7/9/2004	NM	107.89	NM	12.48		NM			
	9/21/2004	NM	106.04	NM	14.33		NM			
	12/20/04 & 12/21/04	106.49	106.40	13.88	13.97		NM			
	3/16/05 & 3/17/05	110.92	110.89	9.45	9.48		NM			
	6/9/05 & 6/13/05	111.07	110.98	9.30	9.39		NM			
	9/28/05 & 9/29/05	107.97	107.91	12.40	12.46		NM			
	12/12/05 & 12/13/05	108.14	108.00	12.23	12.37		NM			

Table 1. Water Level Data and Well Construction Details

Mani Site

200 Talmadge Drive, Santa Rosa, California

Well ID	Date	Groundwater Elevation (Mean Sea Level)		Depth-to-Water		Top of Casing Elevation (Mean Sea Level)	Free Product Thickness	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval
		System On	System Off	System On	System Off		feet			
MW-3	2/2/1995		110.52		9.47	119.99	-	10.0-25.0	8.0-25.0	6.0-8.0
	3/19/1998		111.41		8.58		-			
	9/9/1999		106.57		13.42		-			
	10/11/1999		105.89		14.10		-			
	11/17/1999		105.46		14.53		0.00			
	12/15/1999		105.25		14.74		0.00			
	1/12/2000		104.95		15.04		0.00			
	2/10/2000		106.88		13.11		0.00			
	3/15/2000		111.30		8.69		0.00			
	4/13/2000		110.12		9.87		0.00			
	5/12/2000		109.66		10.33		0.00			
	6/15/2000		108.64		11.35		0.00			
	7/14/2000		107.49		12.50		0.00			
	3/6/2001		108.24		11.77	120.01	0.00			
	6/6/2001		106.93		13.08		0.00			
	9/12/2001		104.79		15.22		0.00			
	12/13/2001		106.42		13.59		0.00			
	1/24/2002	MW-3 Destroyed								
MW-4	3/21/2002	NM	110.02	NM	7.90	117.92	NM	5.0-20.0	4.0-20.0	3.0-4.0
	6/14/2002	NM	107.27	NM	10.65		NM			
	9/10/2002	NM	104.81	NM	13.11		NM			
	12/11/2002	NM	104.01	NM	13.91		NM			
	3/25/2003	NM	109.16	NM	8.76		NM			
	6/27/2003	NM	108.22	NM	9.70		NM			
	10/1/2003	NM	105.17	NM	12.75		NM			
	12/12/2003	NM	105.36	NM	12.56		NM			
	3/26/2004	NM	109.72	NM	8.20		NM			
	7/9/2004	NM	106.54	NM	11.38		NM			
	9/21/2004	NM	104.81	NM	13.11		NM			
	12/20/04 & 12/21/04	105.52	105.47	12.40	12.45		NM			
	3/16/05 & 3/17/05	110.06	110.07	7.86	7.85		NM			
	6/9/05 & 6/13/05	110.08	110.01	7.84	7.91		NM			
	9/28/05 & 9/29/05	107.10	106.80	10.82	11.12		NM			
	12/12/05 & 12/13/05	107.27	107.12	10.65	10.80		NM			
MW-5	3/21/2002	NM	109.42	NM	8.21	117.63	NM	5.0-20.0	4.0-20.0	3.0-4.0
	6/14/2002	NM	106.53	NM	11.10		NM			
	9/10/2002	NM	103.99	NM	13.64		NM			
	12/11/2002	NM	103.21	NM	14.42		NM			
	3/25/2003	NM	108.53	NM	9.10		NM			
	6/27/2003	NM	107.40	NM	10.23		NM			
	10/1/2003	NM	104.40	NM	13.23		NM			
	12/12/2003	NM	104.65	NM	12.98		NM			
	3/26/2004	NM	109.11	NM	8.52		NM			
	7/9/2004	NM	105.89	NM	11.74		NM			
	9/21/2004	NM	104.08	NM	13.55		NM			
	12/20/04 & 12/21/04	104.97	104.90	12.66	12.73		NM			
	3/16/05 & 3/17/05	109.59	109.58	8.04	8.05		NM			
	6/9/05 & 6/13/05	109.47	109.33	8.16	8.30		NM			
	9/28/05 & 9/29/05	106.13	106.05	11.50	11.58		NM			
	12/12/05 & 12/13/05	106.64	106.52	10.99	11.11		NM			
MW-6	3/21/2002	NM	110.10	NM	7.46	117.56	NM	5.0-20.0	4.0-20.0	3.0-4.0
	6/14/2002	NM	107.52	NM	10.04		NM			
	9/10/2002	NM	105.12	NM	12.44		NM			
	12/11/2002	NM	104.33	NM	13.23		NM			
	3/25/2003	NM	109.29	NM	8.27		NM			
	6/27/2003	NM	108.45	NM	9.11		NM			
	10/1/2003	NM	105.50	NM	12.06		NM			
	12/12/2003	NM	105.67	NM	11.89		NM			
	3/26/2004	NM	109.87	NM	7.69		NM			
	7/9/2004	NM	106.90	NM	10.66		NM			
	9/21/2004	NM	105.13	NM	12.43		NM			
	12/20/04 & 12/21/04	105.72	105.65	11.84	11.91		NM			
	3/16/05 & 3/17/05	110.19	110.19	7.37	7.37		NM			
	6/9/05 & 6/13/05	NM	110.10	NM	7.46		NM			
	9/28/05 & 9/29/05	107.16	106.96	10.40	10.60		NM			
	12/12/05 & 12/13/05	107.39	107.24	10.17	10.32		NM			

Table 1. Water Level Data and Well Construction Details

Mani Site

200 Talmadge Drive, Santa Rosa, California

Well ID	Date	Groundwater Elevation (Mean Sea Level)		Depth-to-Water		Top of Casing Elevation (Mean Sea Level)	Free Product Thickness	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval
		System On	System Off	System On	System Off		feet			
SP-1	6/1/2004	NM	NM	NM	11.58	NM	NM	14-17	13.5-19.5	0-13.5
SP-2	6/1/2004	NM	NM	NM	11.41	NM	NM	20-23	19-23	0-19.0
SP-3	6/1/2004	NM	NM	NM	11.07	NM	NM	19-22	18.5-24	0-18.5
SP-4	6/1/2004	NM	NM	NM	10.29	NM	NM	19-22	18.5-22	0-18.5
SP-5	6/1/2004	NM	NM	NM	10.87	NM	NM	14.5-17.5	14-19.5	0-14.0

Abbreviations:

NM = Not Measured

Notes: Monitoring wells were resurveyed on March 13, 2001, and it was discovered that the top-of-casing elevations for MW-2 and MW-3 had been entered in the reverse order when the table was created. This table reflects the corrected top-of-casing elevations, and corresponding groundwater elevations for MW-2 and MW-3.

Table 2. Groundwater Gradient and Flow Direction

Mani Site
200 Talmadge Drive, Santa Rosa, California

Date	Groundwater Gradient (ft/ft)	Flow Direction	Wells used for Calculating Gradient and Flow Direction
2/2/1995	0.02	South 13^0 West	MW-1, MW-2, MW-3
3/19/1998	0.02	South 5^0 East	MW-1, MW-2, MW-3
9/9/1999	0.01	South 52^0 West	MW-1, MW-2, MW-3
10/11/1999	0.01	South 50^0 West	MW-1, MW-2, MW-3
11/17/1999	0.01	South 51^0 West	MW-1, MW-2, MW-3
12/15/1999	0.01	South 47^0 West	MW-1, MW-2, MW-3
1/12/2000	0.01	South 54^0 West	MW-1, MW-2, MW-3
2/10/2000	0.01	South 49^0 West	MW-1, MW-2, MW-3
3/15/2000	0.01	South 57^0 West	MW-1, MW-2, MW-3
4/13/2000	0.01	South 55^0 West	MW-1, MW-2, MW-3
5/12/2000	0.01	South 52^0 West	MW-1, MW-2, MW-3
6/15/2000	0.01	South 52^0 West	MW-1, MW-2, MW-3
7/14/2000	0.01	South 51^0 West	MW-1, MW-2, MW-3
3/6/2001	0.01	South 55^0 West	MW-1, MW-2, MW-3
6/6/2001	0.01	South 55^0 West	MW-1, MW-2, MW-3
9/12/2001	0.01	South 56^0 West	MW-1, MW-2, MW-3
12/13/2001	0.01	South 47^0 West	MW-1, MW-2, MW-3
3/21/2002	0.01	West-Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
6/14/2002	0.02	West-Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
9/10/2002	0.02	Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
12/11/2002	0.02	West-Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
3/25/2003	0.01	Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
6/27/2003	0.01	Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
10/1/2003	0.02	Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
12/12/2003	0.02	Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
3/26/2004	0.02	Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
7/9/2004	0.01	Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
9/21/2004	0.02	Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
12/21/2004	0.01	Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
3/17/2005	0.008	Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
6/13/2005	0.02	West-Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
9/29/2005	0.008	Southwest	MW-1, MW-2, MW-4, MW-5, MW-6
12/13/2005	0.007 - 0.01	Southwest to West	MW-1, MW-2, MW-4, MW-5, MW-6

Note: Monitoring wells were resurveyed on March 13, 2001, and it was discovered that the top-of-casing elevations for MW-2 and MW-3 had been entered in the reverse order when the table was created. This table reflects the corrected top-of-casing elevations, and corresponding groundwater elevations for MW-2 and MW-3. Elevations are relative to mean sea level.

Table 3. Dissolved Oxygen and Indicator Parameters

Mani Site

200 Talmadge Drive, Santa Rosa, California

Well ID	Sample Date [a]	Dissolved Oxygen (mg/L)	ORP (mV)	pH	Conductivity [b] (uS/cm)	Temperature (^{o}F)
MW-1	9/10/2002	---	---	6.74	502	70.9
	12/11/2002	---	---	6.85	819	65.7
	3/25/2003	0.28	---	7.00	1053	65.2
	6/27/2003	0.28	-108	6.83	839	64.4
	10/1/2003	0.28	-35	7.00	883	65.8
	12/12/2003	---	-54	6.81	1007	66.0
	3/26/2004	---	-64	6.76	1039	64.0
	7/9/2004	0.50	-68	6.70	921	65.1
	Biosparge System Start-up After 7/9/04 Monitoring Event					
	9/20/04 & 9/21/04*	0.33	-34	6.97	825	66.7
	12/20/04 & 12/21/04*	0.74	-54	6.91	891	66.9
	2/24/2005	---[c]	---	---	---	---
	3/16/05 & 3/17/05*	9.09	4	6.84	835	65.1
	6/9/05 & 6/13/05*	9.03	---	6.86 [e]	723 [e]	68.8 [e]
	9/28/05 & 9/29/05*	8.38	201	7.22	660	68.0
	12/12/05 & 12/13/05*	7.54	58	7.10	857	66.4
MW-2	9/10/2002	---	---	**Not Sampled**		
	12/11/2002	---	---	**Not Sampled**		
	3/25/2003	0.41	---	6.50	650	66.7
	6/27/2003	0.70	147	6.62	612	65.8
	10/1/2003	0.92	205	6.63	648	67.5
	12/12/2003	---	232	6.63	655	68.2
	3/26/2004	---	250	6.26	612	65.5
	7/9/2004	1.88	222	6.50	578	66.4
	Biosparge System Start-up After 7/9/04 Monitoring Event					
	9/20/04 & 9/21/04*	0.58	173	6.64	572	68.4
	12/20/04 & 12/21/04*	0.50	228	6.42	587	68.2
	2/24/2005	0.78	---	---	---	---
	3/16/05 & 3/17/05*	0.64	203	6.30	619	66.0
	6/9/05 & 6/13/05*	1.27	---	6.34 [e]	601 [e]	68.3 [e]
	9/28/05 & 9/29/05*	1.33	168	6.70	574	68.2
	12/12/05 & 12/13/05*	2.26	175	6.52	568	67.6
MW-3	**Well Destroyed**					
MW-4	9/10/2002	---	---	**Not Measured [d]**		
	12/11/2002	---	---	6.69	732	66.3
	3/25/2003	0.27	---	7.00	868	64.7
	6/27/2003	0.20	-94	6.60	820	66.4
	10/1/2003	0.29	-19	6.74	802	69.6
	12/12/2003	---	-533	6.75	826	67.8
	3/26/2004	---	2	6.55	886	64.0
	7/9/2004	3.31	-60	6.60	740	67.5
	Biosparge System Start-up After 7/9/04 Monitoring Event					
	9/20/04 & 9/21/04*	0.35	-39	7.03	633	71.8
	12/20/04 & 12/21/04*	0.69	-1	7.02	638	69.6
	2/24/2005	0.30	---	---	---	---
	3/16/05 & 3/17/05*	4.55	17	6.77	552	64.8
	6/9/05 & 6/13/05*	6.85	---	6.80 [e]	507 [e]	70.6 [e]
	9/28/05 & 9/29/05*	0.41	43	7.50	514	71.4
	12/12/05 & 12/13/05*	1.64	-27	7.05	659	68.0

Table 3. Dissolved Oxygen and Indicator Parameters

Mani Site

200 Talmadge Drive, Santa Rosa, California

Well ID	Sample Date [a]	Dissolved Oxygen (mg/L)	ORP (mV)	pH	Conductivity [b] (uS/cm)	Temperature (^{o}F)
MW-5	9/10/2002	---	---	6.96	659	70.9
	12/11/2002	---	---	6.62	635	66.6
	3/25/2003	0.26	---	7.00	799	64.0
	6/27/2003	0.21	-43	6.57	774	65.3
	10/1/2003	0.30	19	6.67	732	67.8
	12/12/2003	---	31	6.67	735	67.3
	3/26/2004	---	41	6.54	803	62.8
	7/9/2004	0.45	7	6.50	726	65.5
	Biosparge System Start-up After 7/9/04 Monitoring Event					
	9/20/04 & 9/21/04*	0.27	27	6.65	653	68.5
	12/20/04 & 12/21/04*	0.59	45	6.61	639	66.7
	2/24/2005	0.27	---	---	---	---
	3/16/05 & 3/17/05*	0.60	530	6.56	598	63.1
	6/9/05 & 6/13/05*	0.35	---	6.77 [e]	603 [e]	67.5 [e]
	9/28/05 & 9/29/05*	0.40	16	6.80	530	68.9
	12/12/05 & 12/13/05*	1.77	0	6.78	526	66.6
MW-6	9/10/2002	---	---	6.88	612	69.9
	12/11/2002	---	---	6.44	563	68.2
	3/25/2003	0.28	---	7.00	653	65.5
	6/27/2003	0.39	178	6.61	610	66.9
	10/1/2003	0.58	208	6.69	646	69.4
	12/12/2003	---	263	6.68	661	69.3
	3/26/2004	---	222	6.44	605	64.4
	7/9/2004	0.54	225	6.51	580	67.5
	Biosparge System Start-up After 7/9/04 Monitoring Event					
	9/20/04 & 9/21/04*	0.56	176	6.57	572	70.2
	12/20/04 & 12/21/04*	3.10	212	6.52	558	69.3
	2/24/2005	3.74	---	---	---	---
	3/16/05 & 3/17/05*	4.70	179	6.43	560	65.3
	6/9/05 & 6/13/05*	5.44	---	6.64 [e]	590 [e]	68.9 [e]
	9/28/05 & 9/29/05*	5.79	175	6.90	525	70.9
	12/12/05 & 12/13/05*	6.38	199	6.74	529	68.5

Notes:

a = Tabulated indicator parameters were the last to be recorded from each well.

b = The conductivity was incorrectly reported for the 9/10/2002, 12/11/2002, and 3/25/2003 reporting periods. The decimal points have been moved to show the correct values.

c = DO was not measured because well was covered by a truck that could not be moved at the time DO was measured.

d = Well de-watered after purging 0.75 gallons. Indicator parameters were not measured.

e = A Hydac meter was used to measure indicator parameters due to the unavailability of the Ultrameter.

* = During this sampling event, DO was measured on the first date while the system was on and the other indicator parameters were measured on the second date during purging activities.

Abbreviations:

mg/L = milligrams per liter

ORP = oxidation/reduction potential

mV = millivolts

uS/cm = microSiemens per centimeter

^{o}F = degrees Fahrenheit

--- = Measurements not taken

Table 4. Analytical Results of Nutrient Compounds

Mani Site

200 Talmadge Drive, Santa Rosa, California

Well ID	Sample Date	Analytic Method - EPA 300 (IC), SM 4500			
		Nitrate as Nitrogen (NO_3^{-1}-N)	Nitrite as Nitrogen (NO_2^{-1}-N)	Ammonia as Nitrogen (NH_4^{-1}-N)	Phosphate (PO_4)
		mg/L			
MW-1	5/8/2003	**0.99**	NA	NA	<2.0
	7/9/2004	<0.10	<0.10	<0.15	<0.50
	Biosparge System Start-up After 7/9/04 Monitoring Event				
	9/21/2004	<0.15	<0.15	**0.37**	<2.0
	First Nutrient Injection 9/22/04				
	11/9/2004	<0.50	NA	NA	NA
	12/21/2004	<0.10	<0.10	<0.2	<0.50
	3/17/2005	<0.15	<0.15	<0.15	<1.0
	6/13/2005	**1.4**	<0.15	<0.15	<1.0
	Second Nutrient Injection 7/21/05				
	8/12/2005*	**2.0**	0.0	NA	NA
	9/29/2005	<0.50	<0.5	<0.2	<0.50
	Third Nutrient Injection 12/6/05				
	12/13/2005	**140**	**30**	**0.70**	<2.0
	1/9/2006	**4.4**	<0.10	NA	NA
MW-2	5/8/2003	**6.7**	NA	NA	<2.0
	7/9/2004	**1.4**	<0.10	<0.15	<0.50
	Biosparge System Start-up After 7/9/04 Monitoring Event				
	9/21/2004	**1.3**	<0.15	<0.15	<2.0
	First Nutrient Injection 9/22/04				
	11/9/2004	**5.9**	NA	NA	NA
	12/21/2004	**1.2**	<0.10	<0.2	<0.50
	3/17/2005	**2.0**	<0.15	<0.15	<1.0
	6/13/2005	**1.7**	<0.15	<0.15	<1.0
	Second Nutrient Injection 7/21/05				
	8/12/2005*	**0.5**	0.0	NA	NA
	9/29/2005	**0.84**	<0.50	<0.2	<0.50
	Third Nutrient Injection 12/6/05				
	12/13/2005	**3.5**	<0.10	<0.2	<0.2
MW-4	7/9/2004	<0.10	<0.10	<0.15	<0.50
	Biosparge System Start-up After 7/9/04 Monitoring Event				
	9/21/2004	**0.17**	<0.15	<0.15	<2.0
	First Nutrient Injection 9/22/04				
	11/9/2004	<0.50	NA	NA	NA
	12/21/2004	<0.10	<0.10	<0.2	<0.50
	3/17/2005	<0.15	<0.15	<0.15	<1.0
	6/13/2005	<0.15	<0.15	<0.15	<1.0
	Second Nutrient Injection 7/21/05				
	8/12/2005*	**2.0**	0.0	NA	NA
	9/29/2005	<0.50	<0.50	<0.2	<0.50
	Third Nutrient Injection 12/6/05				
	12/13/2005	**91**	**0.92**	<0.2	<2.0
	1/9/2006	**1.8**	NA	NA	NA

Table 4. Analytical Results of Nutrient Compounds

Mani Site

200 Talmadge Drive, Santa Rosa, California

Well ID	Sample Date	Analytic Method - EPA 300 (IC), SM 4500			
		Nitrate as Nitrogen (NO_3^{-1}-N)	Nitrite as Nitrogen (NO_2^{-1}-N)	Ammonia as Nitrogen (NH_4^{-1}-N)	Phosphate (PO_4)
		mg/L			
MW-5	7/9/2004	<0.10	<0.10	<0.15	<0.50
	Biosparge System Start-up After 7/9/04 Monitoring Event				
	9/21/2004	<0.15	<0.15	<0.15	<2.0
	First Nutrient Injection 9/22/04				
	11/9/2004	**3.0**	NA	NA	NA
	12/21/2004	<0.10	<0.10	<0.2	<0.50
	3/17/2005	<0.15	<0.15	<0.15	<1.0
	6/13/2005	**0.16**	<0.15	<0.15	<1.0
	Second Nutrient Injection 7/21/05				
	8/12/2005*	0.0	0.0	NA	NA
	9/29/2005	<0.50	<0.50	<0.2	<0.50
	Third Nutrient Injection 12/6/05				
	12/13/2005	<0.50	<0.10	<0.2	<0.2
	1/9/2006	**0.15**	NA	NA	NA
MW-6	5/8/2003	**5.8**	NA	NA	<2.0
	7/9/2004	**1.4**	<0.10	<0.15	<0.50
	Biosparge System Start-up After 7/9/04 Monitoring Event				
	9/21/2004	**1.2**	<0.15	**0.30**	<2.0
	First Nutrient Injection 9/22/04				
	11/9/2004	**5.7**	NA	NA	NA
	12/21/2004	**1.2**	<0.10	<0.2	<0.50
	3/17/2005	**1.8**	<0.15	<0.15	<1.0
	6/13/2005	**1.6**	<0.15	<0.15	<1.0
	Second Nutrient Injection 7/21/05				
	8/12/2005*	**2.0**	0.0	NA	NA
	9/29/2005	**1.0**	<0.50	<0.2	<0.50
	Third Nutrient Injection 12/6/05				
	12/13/2005	**5.1**	<0.10	<0.2	<0.2

Abbreviations:

mg/L = milligrams per liter

NA = Not analyzed

* = Concentrations of Nitrate and Nitrite were analyzed using Nitrate/Nitrite test strips in the field.

Note: 9/21/04 data is considered baseline for pre-nutrient injection. The first nutrient injection was completed 9/22/04, after 3rd quarter sampling.

Table 5. Analytical Results of Groundwater Samples

Mani Site

200 Talmadge Drive, Santa Rosa, California

Well ID	Date Sampled	Analytic Methods	TPH-G	TPH-D	B	T	E	X	MTBE	DIPE	ETBE	TAME	TBA	EDC / EDB
			ug/L											
MW-1	2/2/95	8015M / 8020	**32,000**	**2600** [b]	**3,600**	**6,600**	**1,300**	**6,100**	NA	ND	ND	ND	ND	NA
	4/6/95	8015M / 8020	**10,000**	NA	**1,400**	**1,500**	**560**	**1,600**	NA	ND	ND	ND	ND	NA
	3/19/1998	5030/602/8260	**30,000**	**1,400**	**1,300**	**1,000**	**770**	**2,900**	**360**	ND	ND	ND	ND	NA
	9/9/1999	5030A/8260B/8015M	**19,000**	**1,600**	**570**	**220**	**360**	**1,100**	**140**	ND	ND	ND	ND	NA
	12/15/1999	5030A/8260B/8015M	**13,000**	**2,600**	**1,400**	**410**	**1,400**	**3,400**	**280**	ND	ND	ND	ND	NA
	3/15/2000	5030A/8260B/8015M	**23,000**	**1,600**	**920**	**360**	**970**	**2,600**	**120**	ND	ND	ND	ND	<50
	7/14/2000	5030A/8260B/8015M	**22,000**	**880**	**1,300**	**240**	**1,400**	**3,100**	**200**	ND	ND	ND	ND	<50
	3/6/2001	5030A/8260B/8015M	**25,000**	**2,900**	**1,700**	**310**	**2,200**	**4,400**	**260**	ND	ND	ND	ND	<0.50
	6/6/2001	5030A/8260B/8015M	**16,000**	**470** [c]	**980**	**140**	**1,300**	**1,800**	**200**	ND	ND	ND	ND	<50
	9/12/2001	5030A/8260B/8015M	**17,000**	**1,100** [c]	**730**	**96**	**980**	**1,800**	**240**	ND	ND	ND	**31**	<0.50
	12/13/2001	5030A/8260B/8015M	**29,000**	**4,100** [c]	**1,400**	**560**	**1,900**	**4,000**	**120**	ND	ND	ND	ND	<5.0
	3/21/2002	5030A/8260B/8015M	**6,400**	**1,700** [c]	**400**	**200**	**740**	**1,440**	**28**	<10	<10	<10	<10	<10
	6/14/2002	5030A/8260B/8015M	**12,000**	**2000** [d]	**370**	**150**	**860**	**1,700**	**45**	<10	<10	<10	<200	NA
	9/10/2002	5030A/8260B/8015M	**11,000**	**3800** [d]	**140**	**85**	**500**	**940**	**38**	<5.0	<5.0	<5.0	<100	NA
	12/11/2002	5030/8015M/8260B	**9,100**	**3200** [d]	**280**	**120**	**600**	**840**	**64**	<10	<10	<10	<250	NA
	3/25/2003	5030/8015M/8260B	**8,500**	NA	**160**	**210**	**860**	**1,780**	**33**	<10	<10	<10	<250	<10
	5/8/2003	5030/8015M/8260B	**9,900**	NA	**250**	**450**	**790**	**2,020**	<10	<10	<10	<10	<250	<10
	6/27/2003	5030/8015M/8260B	**5,800**	NA	**140**	**220**	**580**	**1,350**	**19**	<10	<10	<10	<25	<10
	10/1/2003	5030/8015M/8260B	**8,100**	NA	**180**	**330**	**1,100**	**2,700**	**36**	<10	<10	<10	<250	<10
	12/12/2003	5030/8015M/8260B	**23,000**	NA	**230**	**380**	**1,800**	**5,290**	**33**	<20	<20	<20	<500	<20
	3/26/2004 [f]	5030/8015M/8260B	**10,000**	**1,800** [d]	**92**	**140**	**900**	**2,200**	**20**	<1.0	<1.0	<1.0	<25	NA
	7/9/2004	5030/8015M/8260B	**4,900**	**1,600** [d]	**40**	**38**	**370**	**880**	**22**	<10	<10	<10	<250	NA
	Biosparge System Start-up After 7/9/04 Monitoring Event													
	9/21/2004	5030/8015M/8260B	**4,300**	**420** [d]	**16**	**13**	**150**	**281**	<10	<10	<10	<10	<250	NA
	12/21/2004	5030/8015M/8260B	**4,500**	**1,200** [d]	**11**	**11**	**37**	**167**	<10	<10	<10	<10	<250	NA
	3/17/2005	5030/8015M/8260B	**1,200**	**290** [d]	**1.3**	**1.6**	**25**	**66**	**1.4**	<1.0	<1.0	<1.0	<25	NA
	6/13/2005	5030/8015M/8260B	**470**	**130** [d]	**1.2**	<1.0	**22**	**32.3**	<1.0	<1.0	<1.0	<1.0	<25	NA
	9/29/2005	5030/8015M/8260B	**280**	<50	<1.0	<1.0	**10**	**7.9**	<1.0	<1.0	<1.0	<1.0	<25	NA
	12/13/2005	5030/8015M/8260B	**170**	<50	<1.0	<1.0	**4.4**	**5.8**	<1.0	<1.0	<1.0	<1.0	<25	NA
MW-2	2/2/95 [a]	8015M / 8020	<50.0	**110** [e]	<0.5	**1.2**	<0.5	<0.5	NA	ND	ND	ND	ND	NA
	3/19/1995	5030/602/8260	<50.0	<50	<0.3	<0.3	<0.5	<0.5	NA	ND	ND	ND	ND	NA
	9/9/1999	5030A/8260B/8015M	<50.0	<50	<0.3	<0.3	<0.5	<0.5	ND	ND	ND	ND	ND	NA
	12/15/1999	5030A/8260B/8015M	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50	ND	ND	ND	ND	NA
	3/15/2000	5030A/8260B/8015M	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50	ND	ND	ND	ND	<0.5
	7/14/2000	5030A/8260B/8015M	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50	ND	ND	ND	ND	<0.5
	3/6/2001	5030A/8260B/8015M	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50	ND	ND	ND	ND	<0.50
	6/6/2001	5030A/8260B/8015M	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50	ND	ND	ND	ND	<0.50
	9/12/2001	5030A/8260B/8015M	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50	ND	ND	ND	ND	<0.50
	12/13/2001	Not Sampled												
	3/21/2002	5030A/8260B/8015M	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0
	6/14/2002	Not Sampled												
	9/10/2002	Not Sampled												
	3/25/2003	5030/8015M/8260B	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0
	6/27/2003	5030/8015M/8260B	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0
	10/1/2003	5030/8015M/8260B	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0
	12/12/2003	5030/8015M/8260B	<50	NA	<1.0	**2.4**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0
	3/26/2004 [f]	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	7/9/2004	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	Biosparge System Start-up After 7/9/04 Monitoring Event													
	9/21/2004	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	12/21/2004	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	3/17/2005	5030/8015M/8260B	<50	<50	<1.0	<1.0	**2.1**	**4.1**	<1.0	<1.0	<1.0	<1.0	<25	NA
	6/13/2005	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	9/29/2005	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	**1.2**	<1.0	<1.0	<1.0	<1.0	<25	NA
	12/13/2005	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
Water Quality Objectives in ug/L			<50	<50	<1	<42	<29	<17	<5	None	None	None	<12	<0.5

Table 5. Analytical Results of Groundwater Samples

Mani Site

200 Talmadge Drive, Santa Rosa, California

Well ID	Date Sampled	Analytic Methods	TPH-G	TPH-D	B	T	E	X	MTBE	DIPE	ETBE	TAME	TBA	EDC / EDB
			ug/L											
MW-3	2/2/95 [a]	8015M / 8020	<50.0	**460**	**5.4**	**12**	**1.3**	**12.0**	NA	NA	NA	NA	NA	NA
	3/19/1995	5030/602/8260	<50.0	<50	<0.3	<0.3	<0.5	<0.5	NA	NA	NA	NA	NA	NA
	9/9/1999	5030A/8260B/8015M	<50.0	<50	<0.3	<0.3	<0.5	<0.5	ND	ND	ND	ND	ND	NA
	12/15/1999	5030A/8260B/8015M	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50	ND	ND	ND	ND	NA
	3/15/2000	5030A/8260B/8015M	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50	ND	ND	ND	ND	<0.5
	7/14/2000	5030A/8260B/8015M	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50	ND	ND	ND	ND	<0.5
	3/6/2001	5030A/8260B/8015M	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50	ND	ND	ND	ND	<0.50
	6/6/2001	5030A/8260B/8015M	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50	ND	ND	ND	ND	<0.50
	9/12/2001	5030A/8260B/8015M	<50	<50	<0.30	<0.30	<0.50	<0.50	<0.50	ND	ND	ND	ND	<0.50
	12/13/2001	Not Sampled												
	1/24/2002	Well Destroyed												
MW-4	3/21/2002	5030A/8260B/8015M	**420**	**120** [c]	**4.1**	<1.0	**5.4**	<1.0	**43**	<1.0	<1.0	<1.0	<25	<1.0
	6/14/2002	5030A/8260B/8015M	**550**	**110** [d]	<1.0	<1.0	**3.4**	<1.0	**33**	<1.0	<1.0	<1.0	<25	NA
	9/10/2002	5030A/8260B/8015M	**1,300**	**200** [d]	**6.6**	<1.0	**38**	<1.0	**27**	<1.0	<1.0	<1.0	<25	NA
	12/11/2002	5030/8015M/8260B	**510**	**230** [d]	**2.1**	<1.0	**13**	<1.0	**28**	<1.0	<1.0	<1.0	<25	NA
	3/25/2003	5030/8015M/8260B	**410**	NA	<1.0	<1.0	**1.7**	<1.0	**24**	<1.0	<1.0	<1.0	<25	<1.0
	6/27/2003	5030/8015M/8260B	**410**	NA	<1.0	<1.0	**1.5**	<1.0	**9.8**	<1.0	<1.0	<1.0	<25	<1.0
	10/1/2003	5030/8015M/8260B	**350**	NA	<1.0	<1.0	<1.0	<1.0	**9.5**	<1.0	<1.0	<1.0	<25	<1.0
	12/12/2003	5030/8015M/8260B	**490**	NA	<1.0	<1.0	<1.0	<1.0	**11**	<1.0	<1.0	<1.0	<25	<1.0
	3/26/2004 [f]	5030/8015M/8260B	**290**	<50	<1.0	<1.0	<1.0	<1.0	**9.0**	<1.0	<1.0	<1.0	<25	NA
	7/9/2004	5030/8015M/8260B	**870**	**120** [d]	**3.5**	<1.0	**2.3**	**10.3**	**6.4**	<1.0	<1.0	<1.0	<25	NA
	Biosparge System Start-up After 7/9/04 Monitoring Event													
	9/21/2004	5030/8015M/8260B	**650**	**91** [d]	<1.0	<1.0	<1.0	<1.0	**1.3**	<1.0	<1.0	<1.0	<25	NA
	12/21/2004	5030/8015M/8260B	**600**	**75** [d]	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	3/17/2005	5030/8015M/8260B	**130**	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	6/13/2005	5030/8015M/8260B	**180**	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	9/29/2005	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	12/13/2005	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
MW-5	3/21/2002	5030A/8260B/8015M	**400**	<50	<1.0	<1.0	<1.0	<1.0	**32**	<1.0	<1.0	<1.0	<25	<1.0
	6/14/2002	5030A/8260B/8015M	<50	<50	<1.0	<1.0	<1.0	<1.0	**31**	<1.0	<1.0	<1.0	<25	NA
	9/10/2002	5030A/8260B/8015M	**350**	<50	<1.0	<1.0	<1.0	<1.0	**11**	<1.0	<1.0	<1.0	<25	NA
	12/11/2002	5030/8015M/8260B	**390**	<50	<1.0	<1.0	<1.0	<1.0	**21**	<1.0	<1.0	<1.0	<25	NA
	3/25/2003	5030/8015M/8260B	**380**	NA	<1.0	<1.0	<1.0	<1.0	**21**	<1.0	<1.0	<1.0	<25	<1.0
	6/27/2003	5030/8015M/8260B	**290**	NA	<1.0	<1.0	<1.0	<1.0	**11**	<1.0	<1.0	<1.0	<25	<1.0
	10/1/2003	5030/8015M/8260B	**260**	NA	<1.0	<1.0	<1.0	<1.0	**5.9**	<1.0	<1.0	<1.0	<25	<1.0
	12/12/2003	5030/8015M/8260B	**210**	NA	<1.0	<1.0	<1.0	<1.0	**6.5**	<1.0	<1.0	<1.0	<25	<1.0
	3/26/2004 [f]	5030/8015M/8260B	**270**	<50	<1.0	<1.0	<1.0	<1.0	**9.9**	<1.0	<1.0	<1.0	<25	NA
	7/9/2004	5030/8015M/8260B	**280**	<50	<1.0	<1.0	<1.0	<1.0	**7.1**	<1.0	<1.0	<1.0	<25	NA
	Biosparge System Start-up After 7/9/04 Monitoring Event													
	9/21/2004	5030/8015M/8260B	**230**	<50	<1.0	<1.0	<1.0	<1.0	**3.7**	<1.0	<1.0	<1.0	<25	NA
	12/21/2004	5030/8015M/8260B	**210**	<50	<1.0	<1.0	<1.0	<1.0	**3.4**	<1.0	<1.0	<1.0	<25	NA
	3/17/2005	5030/8015M/8260B	**200**	<50	<1.0	<1.0	<1.0	<1.0	**4.4**	<1.0	<1.0	<1.0	<25	NA
	6/13/2005	5030/8015M/8260B	**160**	<50	<1.0	<1.0	<1.0	<1.0	**2.0**	<1.0	<1.0	<1.0	<25	NA
	9/29/2005	5030/8015M/8260B	**200**	<50	<1.0	<1.0	<1.0	**1.5**	**1.4**	<1.0	<1.0	<1.0	<25	NA
	12/13/2005	5030/8015M/8260B	**240**	<50	<1.0	<1.0	<1.0	<1.0	**1.3**	<1.0	<1.0	<1.0	<25	NA
MW-6	3/21/2002	5030A/8260B/8015M	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0
	6/14/2002	5030A/8260B/8015M	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	9/10/2002	5030A/8260B/8015M	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	12/11/2002	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	3/25/2003	5030/8015M/8260B	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0
	6/27/2003	5030/8015M/8260B	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0
	10/1/2003	5030/8015M/8260B	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0
	12/12/2003	5030/8015M/8260B	**260**	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0
	3/26/2004 [f]	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	7/9/2004	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	Biosparge System Start-up After 7/9/04 Monitoring Event													
	9/21/2004	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	12/21/2004	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	3/17/2005	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	6/13/2005	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	9/29/2005	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
	12/13/2005	5030/8015M/8260B	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	NA
Water Quality Objectives in ug/L			<50	<50	<1	<42	<29	<17	<5	None	None	None	<12	<0.5

Table 5. Analytical Results of Groundwater Samples

Mani Site

200 Talmadge Drive, Santa Rosa, California

Well ID	Date Sampled	Analytic Methods	TPH-G	TPH-D	B	T	E	X	MTBE	DIPE	ETBE	TAME	TBA	EDC / EDB
			ug/L											
SP-1	6/1/2004	EPA 5030/8015M/8260B	<50	NA	<1.0 [g]	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0
SP-2	6/1/2004	EPA 5030/8015M/8260B	<50	NA	<1.0 [g]	<1.0	<1.0	<1.0	**5.7**	<1.0	<1.0	<1.0	<25	<1.0
SP-3	6/1/2004	EPA 5030/8015M/8260B	**4,100**	NA	<5.0	<5.0	**11**	**240**	<5.0	<5.0	<5.0	<5.0	<100	<5.0
SP-4	6/1/2004	EPA 5030/8015M/8260B	**3,600**	NA	**15**	<5.0	**81**	**127**	**10**	<1.0	<1.0	<1.0	<25	<5.0
SP-5	6/1/2004	EPA 5030/8015M/8260B	<50	NA	<1.0	<1.0	<1.0	<1.0	**5.1**	<1.0	<1.0	<1.0	<25	<1.0
Trip Blank	3/19/1998	5030 / 602	<50	NA	<0.3	<0.3	<0.5	<0.5	NA	NA	NA	NA	NA	NA
	9/9/1999	5030A / 8020	<50	NA	<0.3	<0.3	<0.5	<0.5	NA	NA	NA	NA	NA	NA
	12/15/1999	8260B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/15/2000	5030A / 8020	<50	NA	<0.3	<0.3	<0.5	<0.5	NA	NA	NA	NA	NA	NA
	7/14/2000	5030A / 8020	<50	NA	<0.3	<0.3	<0.5	<0.5	NA	NA	NA	NA	NA	NA
	3/6/2001	5030A / 8020	<50	NA	<0.30	<0.30	<0.50	<0.50	NA	NA	NA	NA	NA	NA
	6/6/2001	5030A / 8020	<50	NA	<0.30	<0.30	<0.50	<0.50	NA	NA	NA	NA	NA	NA
	9/12/2001	5030A / 8020	<50	NA	<0.30	<0.30	<0.50	<0.50	NA	NA	NA	NA	NA	NA
	12/13/2001	5030A / 8020	<50	NA	<0.30	<0.30	<0.50	<0.50	NA	NA	NA	NA	NA	NA
	3/21/2002	8260	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25	<1.0
	6/14/2002	8015M/8020	<50	NA	<0.5	<0.5	<0.5	<1.5	NA	NA	NA	NA	NA	NA
	9/9/2002	8015M/8020	<50	NA	<0.5	<0.5	<0.5	<1.5	NA	NA	NA	NA	NA	NA
	12/11/2002	5030/8015M/8020	<50	NA	<0.5	<0.5	<0.5	<1.5	<2.5	NA	NA	NA	NA	NA
	3/25/2003	5030/8015M/8020	<50	NA	<0.5	<0.5	<0.5	<1.5	NA	NA	NA	NA	NA	NA
	6/27/2003	5030/8015M/8020	<50	NA	<0.5	<0.5	<0.5	<1.5	NA	NA	NA	NA	NA	NA
	10/1/2003	5030/8015M/8020	<50	NA	<0.5	<0.5	<0.5	<1.5	NA	NA	NA	NA	NA	NA
	12/12/2003	5030/8015M/8020	<50	NA	<0.5	<0.5	<0.5	<1.5	NA	NA	NA	NA	NA	NA
	3/26/2004	5030/8015M/8260B	<50	NA	<0.5	<0.5	<0.5	<1.5	NA	NA	NA	NA	NA	NA
Water Quality Objectives in ug/L			<50	<50	<1	<42	<29	<17	<5	None	None	None	<12	<0.5

Notes: [a] = Sampled by Sierra Environmental Service
[b] = Laboratory reports the positive result appears to be both a heavier and lighter hydrocarbon than diesel
[c] = The Laboratory reports that results in the diesel range are primarily due to overlap from a gasoline range product
[d] = The sample does not exhibit a chromatographic pattern characteristic of diesel. Higher boiling point components of weathered gasoline are presen
[e] = The laboratory reports the positive result appears to be a heavier hydrocarbon than diesel
[f] = 3/26/04 samples were analyzed for TPH-MO by 8015M. Results were ND<200 ug/L
[g] = Tetrahydrofuran (THF) was detected and is the primary ingredient in PVC pipe glue and consequently may not be a persistent contaminan

Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline
TPH-D = Total petroleum hydrocarbons as diesel
B = Benzene
T = Toluene
E = Ethyl benzene
X = Total xylenes
EDC = 1,2-dichloroethane
EDB = 1,2-dibromoethane
NA = Not analyzed
ND = Not detected above laboratory detection limits

The 5 Oxygenates Include:

MTBE = Methyl tert-butyl ether
DIPE = Di-isopropyl ether
ETBE = Ethyl tert-butyl ether
TAME = Tert-amyl methyl ether
TBA = Tert-butyl alcohol

Analytic Methods:

5030 = EPA Method GCFID/5030 for TPH-G
602 = EPA Method 602 for BTEX
8020 = EPA Method for MTBE
8260B = EPA Method 8260 for BTEX / Oxygenates
8015M = EPA method 8015M for Diesel

Appendix A
Site-Specific Sampling Procedures

WINZLER & KELLY CONSULTING ENGINEERS

Site-Specific Groundwater Sampling Procedures
Mani Site
200 Talmadge Drive
Santa Rosa, California
December 12 and 13, 2005

1. Objective

Collect representative water level data and groundwater samples.

2. Background

Based on the analytical results of the previous sampling, field work proceeded from the monitoring wells in which the samples collected had the lowest concentrations of constituents to the wells that had the highest concentrations of constituents.

Water levels were measured to determine the direction and gradient of groundwater flow. Representative groundwater samples from the water-bearing zone were obtained using disposable polyethylene bailers following purging.

3. Personnel Required and Responsibilities

Winzler & Kelly Field Technician: Pon Xayasaeng performed groundwater monitoring and sampling activities in accordance with the procedures outlined below.

4. Procedures

4a. Biosparge System Shutdown and DO Concentrations, December 12, 2005

- The membrane on the YSI Model 55 DO meter was checked for the presence of bubbles and wrinkles, neither of which was observed.
- The meter was calibrated in the field prior to collecting measurements.
- Using the calibrated YSI Model 55 DO Meter, DO concentrations were measured in each monitoring well.
- Following DO measurements, the biosparge system was shutdown to allow the groundwater to equilibrate.

4b. Decontamination Procedures, December 13, 2005

- Using Alconox soap and potable water, all equipment and instruments to be used were decontaminated upon arriving at the site.
- All equipment and instruments were decontaminated after use in each well.
- All equipment and instruments were decontaminated after field activities had been completed.

- Nitrile gloves were worn by sampler at all times and changed after handling equipment and instruments.

4c. Calibration Procedures, December 13, 2005

- The Ultrameter was calibrated for conductivity and pH. Temperature calibration is not necessary in the Ultrameter.
- Conductivity was calibrated using KCl-7000 standard solution within its expiration date.
- The calibration for pH included "zeroing" the Ultrameter with a pH 7 buffer solution followed by adjusting the gain with acid and base buffers (4.00 and 10.00). All buffer solutions were within their expiration date.

4d. Groundwater Elevations, December 12 and 13, 2005

- A water level meter was used to determine the depth-to-groundwater (DTW) in each monitoring well after allowing each well to equilibrate to atmospheric pressure for at least 30 minutes.
- DTW was measured while the biosparge system was on and while the system was turned off.
- Recorded depth, time and visual observations regarding well access, condition, security, etc on water level data sheet.
- The water level meter was decontaminated after each use.

4e. Purging, December 13, 2005

- The volume of standing water in each monitoring well was calculated using the diameter of the well, the measured depth-to-water and the depth-to-bottom. The volume was recorded on the Well Sampling Data Sheet for each well.
- Monitoring wells were purged using a 12-volt DC 1.5-inch electric submersible pump.
- Field parameters (pH, conductivity, and temperature) were obtained with the Ultrameter and visual observations of color/odor/turbidity at each well casing interval throughout the purging process.
- The time, readings, and visual comments were recorded on a Well Sampling Data Sheet.
- Each well was purged until field parameters stabilized, not exceeding 7 casing volumes, or until the well de-watered.
- The electric submersible pump was decontaminated after each use.
- All excess water was transferred to 55-gallon drums labeled and secured on site.

4f. Groundwater Sample Collection, December 13, 2005

- Groundwater samples were collected by lowering previously unused, disposable, polyethylene, bottom-filling bailers into the well once the water level had recharge to at least 80%.
- When completely full, the bailer was carefully retracted from the well and the groundwater was transferred from the bailers to the appropriate certified clean sampling containers.

- Groundwater transferred into 40-ml glass vials were preserved with HCl.
- Upon filling, each vial was immediately capped. The vial was checked for air bubbles by inverting and gently tapping the vial.
- All sample containers were labeled with the following information:
  Sample ID Date and Time Sample Collected
  Location Sampler's Initials
- Sample information was documented on a chain-of-custody form.
- All sample containers were placed in an ice chest chilled with ice.
- Upon completion of the sampling activities, each well was closed and secured by replacing the well cap and securing the lock.

5. Equipment Used:

- Disposable gloves
- Potable water
- Alconox soap
- Containers to hold rinsate water
- Scrub Brushes
- Tools to open wells
- Keys to wells
- Water Level Data Form/pencil
- Well Sampling Data Sheet
- Groundwater Sampling Log form
- Water level meter
- 12-volt DC 1.5-inch electric submersible pump
- Ultrameter
- Containers to hold extracted water (as required)
- Disposable bailers (previously unused)
- Monofilament nylon line (50 lb test)
- Scissors
- Laboratory supplied sample containers (preserved, as required)
- Sample labels
- Ice chest
- Ice
- Labels/indelible marker
- Trash bags
- 55-gallon drums
- Ziploc bags
- Portable 12-V battery

Appendix B
Well Sampling Data Sheets

WINZLER & KELLY
CONSULTING ENGINEERS

WELL SAMPLING DATA SHEET

PROJECT NAME: Mani
PROJECT NUMBER: 0 2343050OL.32002
WELL DESIGNATION: MW-1

PROJECT DATE: 12/13/05
SAMPLER: Pon Xayasaeng
SAMPLE NUMBER: MW-1

CONDITION OF WELL HEAD/VAULT/CAP & LOCK:
A. TOP OF CASING ELEVATION:
B. DEPTH TO GROUNDWATER (initial): 11.04'
C. DEPTH OF WELL: 25' MEASURED _____
D. HEIGHT OF WATER COLUMN (C-B):
E. GROUNDWATER ELEVATION (A-B):

CASING DIAMETER: 2" X 3" _____ 4" _____ OTHER _____

CALCULATED WELL VOLUME: D X V = (25'-11.04') (0.163) = 2.3 gal
Volume (V) of 2" well - 0.163 gal/ft
Volume (V) of 4" well - 0.653 gal/ft

ODOR NO SHEEN NO FLOATING PRODUCT THICKNESS NO

PUMP TYPE: POLY BAILER _____ STAINLESS BAILER _____
ELECTRIC X OTHER _____

PUMP DEPTH:

~~ORP~~ ORP (MV)	GALLONS PURGED	NO. OF WELL VOLUMES	pH	TEMPERATURE (°F OR °C)	CONDUCTIVITY (mmhos/cm or ~~µmhos/cm~~)	TURBIDITY (NTU or ~~visual~~)
54	2.3	1	7.33	18.5	810	clear
57	4.6	2	7.12	19.2	853	clear
58	6.9	3	7.10	19.1	857	clear

RECHARGE RATE (qualitative):

SAMPLER TYPE: TEFLON BAILER _____ ACRYLIC BAILER _____ DISPOSABLE BAILER _____

SAMPLES COLLECTED: PRESERVED VOA'S _____ UNPRESERVED VOA'S _____
PRESERVED LITERS _____ UNPRESERVED LITERS _____
500 ml PLASTIC BOTTLE WITH PRESERVATIVE FOR METALS:
FILTERED _____ UNFILTERED _____
OTHER _____

COMMENTS: _____

WINZLER & KELLY
CONSULTING ENGINEERS

WELL SAMPLING DATA SHEET

PROJECT NAME: Maui
PROJECT NUMBER: 02343050OL.32002
WELL DESIGNATION: MW-2

PROJECT DATE: 12/13/05
SAMPLER: Pon Xayasaeng
SAMPLE NUMBER: MW-2

CONDITION OF WELL HEAD/VAULT/CAP & LOCK:
A. TOP OF CASING ELEVATION:
B. DEPTH TO GROUNDWATER (initial): 12.37
C. DEPTH OF WELL: 25' MEASURED _____
D. HEIGHT OF WATER COLUMN (C-B):
E. GROUNDWATER ELEVATION (A-B):

CASING DIAMETER: 2" X 3" _____ 4" _____ OTHER _____

CALCULATED WELL VOLUME: D X V = (25 - 12.37)(0.163) = 2.1 gallons
Volume (V) of 2" well - 0.163 gal/ft
Volume (V) of 4" well - 0.653 gal/ft

ODOR No SHEEN No FLOATING PRODUCT THICKNESS No

PUMP TYPE: POLY BAILER _____ STAINLESS BAILER _____
ELECTRIC X OTHER _____

PUMP DEPTH:

~~ORP~~ ORP (mV)	GALLONS PURGED	NO. OF WELL VOLUMES	pH	TEMPERATURE (°F OR °C)	CONDUCTIVITY (mmhos/cm or ~~µmhos/cm~~)	TURBIDITY (NTU or visual)
192	2.1	1	6.38	19.0	573	clear
182	4.2	2	6.45	19.6	573	clear
175	6.3	3	6.52	19.8	568	clear

RECHARGE RATE (qualitative):

SAMPLER TYPE: TEFLON BAILER _____ ACRYLIC BAILER _____ DISPOSABLE BAILER _____

SAMPLES COLLECTED: PRESERVED VOA'S _____ UNPRESERVED VOA'S _____
PRESERVED LITERS _____ UNPRESERVED LITERS _____
500 ml PLASTIC BOTTLE WITH PRESERVATIVE FOR METALS:
FILTERED _____ UNFILTERED _____
OTHER _____

COMMENTS: _____

WINZLER & KELLY
CONSULTING ENGINEERS

WELL SAMPLING DATA SHEET

PROJECT NAME: Maui
PROJECT NUMBER: 023430500L.32002
WELL DESIGNATION: MW-4

PROJECT DATE: 12/13/05
SAMPLER: Von Xayasaeng
SAMPLE NUMBER: MW-4

CONDITION OF WELL HEAD/VAULT/CAP & LOCK:
A. TOP OF CASING ELEVATION:
B. DEPTH TO GROUNDWATER (initial): 10.80'
C. DEPTH OF WELL: 20' MEASURED _____
D. HEIGHT OF WATER COLUMN (C-B):
E. GROUNDWATER ELEVATION (A-B):

CASING DIAMETER: 2" X 3" _____ 4" _____ OTHER _____

CALCULATED WELL VOLUME: D X V = (20' - 10.80')(0.163) = 1.5 gal
Volume (V) of 2" well - 0.163 gal/ft
Volume (V) of 4" well - 0.653 gal/ft

ODOR NO SHEEN NO FLOATING PRODUCT THICKNESS NO

PUMP TYPE: POLY BAILER _____ STAINLESS BAILER _____
ELECTRIC X OTHER _____

PUMP DEPTH:

~~ORP~~ ORP (MV)	GALLONS PURGED	NO. OF WELL VOLUMES	pH	TEMPERATURE (°F OR °C)	CONDUCTIVITY (mmhos/cm or ~~µmhos/cm~~)	TURBIDITY (NTU or visual)
-54	1.5	1	7.12	17.6	713	clear
-27	3.0	2	7.05	20.0	659	clear
~~—~~	~~4.5~~	~~3~~	dewatered	~~—~~		
		purged	4.0	gallons		

RECHARGE RATE (qualitative):

SAMPLER TYPE: TEFLON BAILER _____ ACRYLIC BAILER _____ DISPOSABLE BAILER _____

SAMPLES COLLECTED: PRESERVED VOA'S _____ UNPRESERVED VOA'S _____
PRESERVED LITERS _____ UNPRESERVED LITERS _____
500 ml PLASTIC BOTTLE WITH PRESERVATIVE FOR METALS:
FILTERED _____ UNFILTERED _____
OTHER _____

COMMENTS: _____

WINZLER & KELLY
CONSULTING ENGINEERS

WELL SAMPLING DATA SHEET

PROJECT NAME: Mani
PROJECT NUMBER: 0 2343050OL.32002
WELL DESIGNATION: MW-5

PROJECT DATE: 12/13/05
SAMPLER: Pon Xayasaeng
SAMPLE NUMBER: MW-5

CONDITION OF WELL HEAD/VAULT/CAP & LOCK:
A. TOP OF CASING ELEVATION:
B. DEPTH TO GROUNDWATER (initial): 11.11'
C. DEPTH OF WELL: 20' MEASURED _____
D. HEIGHT OF WATER COLUMN (C-B):
E. GROUNDWATER ELEVATION (A-B):

CASING DIAMETER: 2" X 3" _____ 4" _____ OTHER _____

CALCULATED WELL VOLUME: D X V = (20'-11.11')(0.163) = 1.5 gal
Volume (V) of 2" well - 0.163 gal/ft
Volume (V) of 4" well - 0.653 gal/ft

ODOR No/Slight SHEEN No FLOATING PRODUCT THICKNESS No

PUMP TYPE: POLY BAILER _____ STAINLESS BAILER _____
ELECTRIC X OTHER _____

PUMP DEPTH:

~~Eh~~ ORP (mV)	GALLONS PURGED	NO. OF WELL VOLUMES	pH	TEMPERATURE (°F OR ~~°C~~)	CONDUCTIVITY (mmhos/cm or ~~mmhos/cm~~)	TURBIDITY (NTU or visual)
38	1.5	1	6.83	18.3	538	clear
10	3.0	2	6.79	19.0	529	clear
0	4.5	3	6.78	19.2	526	

RECHARGE RATE (qualitative):

SAMPLER TYPE: TEFLON BAILER _____ ACRYLIC BAILER _____ DISPOSABLE BAILER _____

SAMPLES COLLECTED: PRESERVED VOA'S _____ UNPRESERVED VOA'S _____
PRESERVED LITERS _____ UNPRESERVED LITERS _____
500 ml PLASTIC BOTTLE WITH PRESERVATIVE FOR METALS:
FILTERED _____ UNFILTERED _____
OTHER _____

COMMENTS: Gasoline odor

WINZLER & KELLY
CONSULTING ENGINEERS

WELL SAMPLING DATA SHEET

PROJECT NAME: Maui
PROJECT NUMBER: 0234305001.32002
WELL DESIGNATION: MW-6

PROJECT DATE: 12/13/05
SAMPLER: Von Xayasaeng
SAMPLE NUMBER: MW-6

CONDITION OF WELL HEAD/VAULT/CAP & LOCK:
A. TOP OF CASING ELEVATION:
B. DEPTH TO GROUNDWATER (initial): 10.32'
C. DEPTH OF WELL: 20' MEASURED _____
D. HEIGHT OF WATER COLUMN (C-B):
E. GROUNDWATER ELEVATION (A-B):

CASING DIAMETER: 2" X 3" _____ 4" _____ OTHER _____

CALCULATED WELL VOLUME: D X V = (20'-10.32')(0.163) = 1.6 gal
Volume (V) of 2" well - 0.163 gal/ft
Volume (V) of 4" well - 0.653 gal/ft

ODOR No SHEEN No FLOATING PRODUCT THICKNESS No

PUMP TYPE: POLY BAILER _____ STAINLESS BAILER _____
ELECTRIC X OTHER _____

PUMP DEPTH:

~~EH~~ ORP (mV)	GALLONS PURGED	NO. OF WELL VOLUMES	pH	TEMPERATURE (°F OR °C)	CONDUCTIVITY (mmhos/cm or µmhos/cm	TURBIDITY (NTU or visual)
214	1.6	1	6.81	19.6	531	clear
205	3.2	2	6.73	19.9	526	clear
199	4.8	3	6.74	20.3	529	clear

RECHARGE RATE (qualitative):

SAMPLER TYPE: TEFLON BAILER _____ ACRYLIC BAILER _____ DISPOSABLE BAILER _____

SAMPLES COLLECTED: PRESERVED VOA'S _____ UNPRESERVED VOA'S _____
PRESERVED LITERS _____ UNPRESERVED LITERS _____
500 ml PLASTIC BOTTLE WITH PRESERVATIVE FOR METALS:
FILTERED _____ UNFILTERED _____
OTHER _____

COMMENTS: _____

Appendix C
Analytical Laboratory Reports

Analytical Sciences

Report Date: December 22, 2005

Laboratory Report

Sonja Church
Winzler & Kelly Consulting Engineers
495 Tesconi Circle, Suite 9
Santa Rosa, CA 95401

Project Name: **Mani** **0234305001.32002**

Lab Project: **5121401**

This 20 page report of analytical data has been reviewed and approved for release.

Mark A. Valentini, Ph.D.

Laboratory Director

P.O. Box 750336
Petaluma, CA 94975-0336
Telephone: (707) 769-3128

110 Liberty Street
Petaluma, CA 94952

TPH Gasoline in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5121401-01	**MW-2**	Gasoline	ND	50

Date Sampled:	12/13/05	Date Analyzed:	12/14/05	QC Batch:	B000413
Date Received:	12/13/05	Method:	EPA 8015		

TPH Gasoline in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5121401-02	**MW-6**	Gasoline	ND	50

Date Sampled:	12/13/05	Date Analyzed:	12/14/05	QC Batch:	B000413
Date Received:	12/13/05	Method:	EPA 8015		

TPH Gasoline in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5121401-03	**MW-4**	Gasoline	ND	50

Date Sampled:	12/13/05	Date Analyzed:	12/14/05	QC Batch:	B000413
Date Received:	12/13/05	Method:	EPA 8015		

TPH Gasoline in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5121401-04	**MW-5**	Gasoline	240	50

Date Sampled:	12/13/05	Date Analyzed:	12/14/05	QC Batch:	B000413
Date Received:	12/13/05	Method:	EPA 8015		

TPH Gasoline in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5121401-05	**MW-1**	Gasoline	170	50

Date Sampled:	12/13/05	Date Analyzed:	12/14/05	QC Batch:	B000413
Date Received:	12/13/05	Method:	EPA 8015		

Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5121401-01	**MW-2**	Benzene	ND	1.0
		Toluene	ND	1.0
		Ethylbenzene	ND	1.0
		m,p-Xylene	ND	1.0
		o-Xylene	ND	1.0
		Tertiary Butyl Alcohol (TBA)	ND	25
		Methyl tert-Butyl Ether (MTBE)	ND	1.0
		Di-isopropyl Ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0

Surrogates	Result (ug/L)	% Recovery	Acceptance Range (%)
Dibromofluoromethane	20.5	102	70-130
Toluene-d8	20.7	104	70-130
4-Bromofluorobenzene	18.3	92	70-130

Date Sampled:	12/13/05	Date Analyzed:	12/15/05	QC Batch:	B000417
Date Received:	12/13/05	Method:	EPA 8260B		

Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5121401-02	**MW-6**	Benzene	ND	1.0
		Toluene	ND	1.0
		Ethylbenzene	ND	1.0
		m,p-Xylene	ND	1.0
		o-Xylene	ND	1.0
		Tertiary Butyl Alcohol (TBA)	ND	25
		Methyl tert-Butyl Ether (MTBE)	ND	1.0
		Di-isopropyl Ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0

Surrogates	Result (ug/L)	% Recovery	Acceptance Range (%)
Dibromofluoromethane	20.6	103	70-130
Toluene-d8	20.8	104	70-130
4-Bromofluorobenzene	18.4	92	70-130

Date Sampled:	12/13/05	Date Analyzed:	12/15/05	QC Batch: B000417
Date Received:	12/13/05	Method:	EPA 8260B	

Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5121401-03	**MW-4**	Benzene	ND	1.0
		Toluene	ND	1.0
		Ethylbenzene	ND	1.0
		m,p-Xylene	ND	1.0
		o-Xylene	ND	1.0
		Tertiary Butyl Alcohol (TBA)	ND	25
		Methyl tert-Butyl Ether (MTBE)	ND	1.0
		Di-isopropyl Ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0

Surrogates	Result (ug/L)	% Recovery	Acceptance Range (%)
Dibromofluoromethane	20.6	103	70-130
Toluene-d8	20.7	104	70-130
4-Bromofluorobenzene	18.4	92	70-130

Date Sampled:	12/13/05	Date Analyzed:	12/15/05	QC Batch: B000417
Date Received:	12/13/05	Method:	EPA 8260B	

Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5121401-04	**MW-5**	Benzene	ND	1.0
		Toluene	ND	1.0
		Ethylbenzene	ND	1.0
		m,p-Xylene	ND	1.0
		o-Xylene	ND	1.0
		Tertiary Butyl Alcohol (TBA)	ND	25
		Methyl tert-Butyl Ether (MTBE)	1.3	1.0
		Di-isopropyl Ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0

Surrogates	Result (ug/L)	% Recovery	Acceptance Range (%)
Dibromofluoromethane	20.4	102	70-130
Toluene-d8	20.7	104	70-130
4-Bromofluorobenzene	18.6	93	70-130

Date Sampled:	12/13/05	Date Analyzed:	12/15/05	QC Batch: B000417
Date Received:	12/13/05	Method:	EPA 8260B	

Volatile Hydrocarbons by GC/MS in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5121401-05	**MW-1**	Benzene	ND	1.0
		Toluene	ND	1.0
		Ethylbenzene	4.4	1.0
		m,p-Xylene	5.8	1.0
		o-Xylene	ND	1.0
		Tertiary Butyl Alcohol (TBA)	ND	25
		Methyl tert-Butyl Ether (MTBE)	ND	1.0
		Di-isopropyl Ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0

Surrogates	Result (ug/L)	% Recovery	Acceptance Range (%)
Dibromofluoromethane	20.7	104	70-130
Toluene-d8	20.6	103	70-130
4-Bromofluorobenzene	18.7	94	70-130

Date Sampled:	12/13/05	Date Analyzed:	12/15/05	QC Batch: B000417
Date Received:	12/13/05	Method:	EPA 8260B	

TPH Diesel in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5121401-01	**MW-2**	Diesel	ND	50

Date Sampled:	12/13/05	Date Analyzed:	12/19/05	QC Batch:	B000418
Date Received:	12/13/05	Method:	EPA 8015M		

TPH Diesel in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5121401-02	**MW-6**	Diesel	ND	50

Date Sampled:	12/13/05	Date Analyzed:	12/19/05	QC Batch:	B000418
Date Received:	12/13/05	Method:	EPA 8015M		

TPH Diesel in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5121401-03	**MW-4**	Diesel	ND	50

Date Sampled:	12/13/05	Date Analyzed:	12/19/05	QC Batch:	B000418
Date Received:	12/13/05	Method:	EPA 8015M		

TPH Diesel in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5121401-04	**MW-5**	Diesel	ND	50

Date Sampled:	12/13/05	Date Analyzed:	12/19/05	QC Batch:	B000418
Date Received:	12/13/05	Method:	EPA 8015M		

TPH Diesel in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5121401-05	**MW-1**	Diesel	ND	50

Date Sampled:	12/13/05	Date Analyzed:	12/19/05	QC Batch:	B000418
Date Received:	12/13/05	Method:	EPA 8015M		

Nitrate in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
5121401-01	**MW-2**	Nitrate	3.5	0.50

Date Sampled:	12/13/05	Date Analyzed:	12/14/05	QC Batch:	B000414
Date Received:	12/13/05	Method:	EPA 300		

Nitrate in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
5121401-02	**MW-6**	Nitrate	5.1	0.50

Date Sampled:	12/13/05	Date Analyzed:	12/14/05	QC Batch:	B000414
Date Received:	12/13/05	Method:	EPA 300		

Nitrate in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
5121401-03	**MW-4**	Nitrate	91	50

Date Sampled:	12/13/05	Date Analyzed:	12/14/05	QC Batch:	B000414
Date Received:	12/13/05	Method:	EPA 300		

Nitrate in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
5121401-04	**MW-5**	Nitrate	ND	0.50

Date Sampled:	12/13/05	Date Analyzed:	12/14/05	QC Batch:	B000414
Date Received:	12/13/05	Method:	EPA 300		

Nitrate in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
5121401-05	**MW-1**	Nitrate	140	50

Date Sampled:	12/13/05	Date Analyzed:	12/14/05	QC Batch:	B000414
Date Received:	12/13/05	Method:	EPA 300		

Nitrite in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
5121401-01	**MW-2**	Nitrite	ND	0.10

Date Sampled:	12/13/05	Date Analyzed:	12/14/05	QC Batch:	B000414
Date Received:	12/13/05	Method:	EPA 300.0		

Nitrite in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
5121401-02	**MW-6**	Nitrite	ND	0.10

Date Sampled:	12/13/05	Date Analyzed:	12/14/05	QC Batch:	B000414
Date Received:	12/13/05	Method:	EPA 300.0		

Nitrite in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
5121401-03	**MW-4**	Nitrite	0.92	0.10

Date Sampled:	12/13/05	Date Analyzed:	12/14/05	QC Batch:	B000414
Date Received:	12/13/05	Method:	EPA 300.0		

Nitrite in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
5121401-04	**MW-5**	Nitrite	ND	0.10

Date Sampled:	12/13/05	Date Analyzed:	12/14/05	QC Batch:	B000414
Date Received:	12/13/05	Method:	EPA 300.0		

Nitrite in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
5121401-05	**MW-1**	Nitrite	30	1.0

Date Sampled:	12/13/05	Date Analyzed:	12/14/05	QC Batch:	B000414
Date Received:	12/13/05	Method:	EPA 300.0		

Ammonia as Nitrogen in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
5121401-01	**MW-2**	Ammonia as N	ND	0.2

Date Sampled:	12/13/05	Date Analyzed:	12/14/05	QC Batch:	B000376
Date Received:	12/13/05	Method:	EPA 350.3		

Ammonia as Nitrogen in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
5121401-02	**MW-6**	Ammonia as N	ND	0.2

Date Sampled:	12/13/05	Date Analyzed:	12/14/05	QC Batch:	B000376
Date Received:	12/13/05	Method:	EPA 350.3		

Ammonia as Nitrogen in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
5121401-03	**MW-4**	Ammonia as N	ND	0.2

Date Sampled:	12/13/05	Date Analyzed:	12/14/05	QC Batch:	B000376
Date Received:	12/13/05	Method:	EPA 350.3		

Ammonia as Nitrogen in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
5121401-04	**MW-5**	Ammonia as N	ND	0.2

Date Sampled:	12/13/05	Date Analyzed:	12/14/05	QC Batch:	B000376
Date Received:	12/13/05	Method:	EPA 350.3		

Ammonia as Nitrogen in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
5121401-05	**MW-1**	Ammonia as N	0.7	0.2

Date Sampled:	12/13/05	Date Analyzed:	12/14/05	QC Batch:	B000376
Date Received:	12/13/05	Method:	EPA 350.3		

Phosphate in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
5121401-01	**MW-2**	Phosphate	ND	0.20

Date Sampled:	12/13/05	Date Analyzed:	12/14/05	QC Batch:	B000414
Date Received:	12/13/05	Method:	EPA 300.0		

Phosphate in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
5121401-02	**MW-6**	Phosphate	ND	0.20

Date Sampled:	12/13/05	Date Analyzed:	12/14/05	QC Batch:	B000414
Date Received:	12/13/05	Method:	EPA 300.0		

Phosphate in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
5121401-03	**MW-4**	Phosphate	ND	2.0

Date Sampled:	12/13/05	Date Analyzed:	12/14/05	QC Batch:	B000414
Date Received:	12/13/05	Method:	EPA 300.0		

Phosphate in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
5121401-04	**MW-5**	Phosphate	ND	0.20

Date Sampled:	12/13/05	Date Analyzed:	12/14/05	QC Batch:	B000414
Date Received:	12/13/05	Method:	EPA 300.0		

Phosphate in Water

Lab#	Sample ID	Compound Name	Result (mg/L)	RDL (mg/L)
5121401-05	**MW-1**	Phosphate	ND	2.0

Date Sampled:	12/13/05	Date Analyzed:	12/14/05	QC Batch:	B000414
Date Received:	12/13/05	Method:	EPA 300.0		

Quality Assurance Report

TPH Gasoline in Water

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B000413 - EPA 5030 GC										
Blank (B000413-BLK1)				Prepared & Analyzed: 12/13/05						
Gasoline	ND	50	ug/L							
Matrix Spike (B000413-MS1)		**Source: 5121303-01**		Prepared & Analyzed: 12/13/05						
Benzene	9.92	0.50	ug/L	10.0	ND	99	70-130			
Toluene	10.2	0.50	ug/L	10.0	ND	102	70-130			
Ethylbenzene	10.2	0.50	ug/L	10.0	ND	102	70-130			
Xylenes	31.3	1.5	ug/L	30.0	ND	104	70-130			
Matrix Spike Dup (B000413-MSD1)		**Source: 5121303-01**		Prepared & Analyzed: 12/13/05						
Benzene	9.84	0.50	ug/L	10.0	ND	98	70-130	1	20	
Toluene	9.80	0.50	ug/L	10.0	ND	98	70-130	4	20	
Ethylbenzene	9.96	0.50	ug/L	10.0	ND	100	70-130	2	20	
Xylenes	30.0	1.5	ug/L	30.0	ND	100	70-130	4	20	

Volatile Hydrocarbons by GC/MS in Water

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B000417 - EPA 5030 GC/MS										
Blank (B000417-BLK1)				Prepared & Analyzed: 12/15/05						
Benzene	ND	1.0	ug/L							
Toluene	ND	1.0	ug/L							
Ethylbenzene	ND	1.0	ug/L							
m,p-Xylene	ND	1.0	ug/L							
o-Xylene	ND	1.0	ug/L							
Tertiary Butyl Alcohol (TBA)	ND	25	ug/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	ug/L							
Di-isopropyl Ether (DIPE)	ND	1.0	ug/L							
Ethyl tert-Butyl Ether (ETBE)	ND	1.0	ug/L							
Tert-Amyl Methyl Ether (TAME)	ND	1.0	ug/L							
Surrogate: Dibromofluoromethane	*20.6*		*ug/L*	*20.0*		*103*	*70-130*			
Surrogate: Toluene-d8	*20.4*		*ug/L*	*20.0*		*102*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*19.1*		*ug/L*	*20.0*		*96*	*70-130*			
Matrix Spike (B000417-MS1)		**Source: 5121305-01**		Prepared & Analyzed: 12/15/05						
1,1-Dichloroethene (1,1-DCE)	25.0	1.0	ug/L	25.0	ND	100	70-130			
Benzene	25.2	1.0	ug/L	25.0	ND	101	70-130			
Trichloroethene (TCE)	25.3	1.0	ug/L	25.0	ND	101	70-130			
Toluene	25.4	1.0	ug/L	25.0	ND	102	70-130			
Chlorobenzene	24.4	1.0	ug/L	25.0	ND	98	70-130			
Surrogate: Dibromofluoromethane	*20.5*		*ug/L*	*20.0*		*102*	*70-130*			
Surrogate: Toluene-d8	*20.7*		*ug/L*	*20.0*		*104*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*18.5*		*ug/L*	*20.0*		*92*	*70-130*			
Matrix Spike Dup (B000417-MSD1)		**Source: 5121305-01**		Prepared & Analyzed: 12/15/05						
1,1-Dichloroethene (1,1-DCE)	24.3	1.0	ug/L	25.0	ND	97	70-130	3	20	
Benzene	24.9	1.0	ug/L	25.0	ND	100	70-130	1	20	
Trichloroethene (TCE)	24.6	1.0	ug/L	25.0	ND	98	70-130	3	20	
Toluene	24.9	1.0	ug/L	25.0	ND	100	70-130	2	20	
Chlorobenzene	24.0	1.0	ug/L	25.0	ND	96	70-130	2	20	
Surrogate: Dibromofluoromethane	*20.5*		*ug/L*	*20.0*		*102*	*70-130*			
Surrogate: Toluene-d8	*20.9*		*ug/L*	*20.0*		*104*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*18.9*		*ug/L*	*20.0*		*94*	*70-130*			

TPH Diesel in Water

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B000418 - EPA 3510C										
Blank (B000418-BLK1)				Prepared: 12/16/05 Analyzed: 12/19/05						
Diesel	ND	50	ug/L							
LCS (B000418-BS1)				Prepared: 12/16/05 Analyzed: 12/19/05						
Diesel	1950	50	ug/L	2740		71	65-135			
LCS Dup (B000418-BSD1)				Prepared: 12/16/05 Analyzed: 12/19/05						
Diesel	1990	50	ug/L	2740		73	65-135	3	30	

Nitrate in Water

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B000414 - NO PREP										
Blank (B000414-BLK1)				Prepared: 12/14/05 Analyzed: 12/15/05						
Nitrate	ND	0.50	mg/L							
LCS (B000414-BS1)				Prepared & Analyzed: 12/15/05						
Nitrate	2.02	0.50	mg/L	2.00		101	80-120			
LCS Dup (B000414-BSD1)				Prepared & Analyzed: 12/15/05						
Nitrate	1.97	0.50	mg/L	2.00		98	80-120	3	20	

Nitrite in Water

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B000414 - NO PREP										
Blank (B000414-BLK1)				Prepared: 12/14/05 Analyzed: 12/15/05						
Nitrite	ND	0.10	mg/L							
LCS (B000414-BS1)				Prepared & Analyzed: 12/15/05						
Nitrite	0.554	0.10	mg/L	0.500		111	80-120			
LCS Dup (B000414-BSD1)				Prepared & Analyzed: 12/15/05						
Nitrite	0.544	0.10	mg/L	0.500		109	80-120	2	20	

Ammonia as Nitrogen in Water

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B000376 - Default Prep GenChem										
Blank (B000376-BLK1)				Prepared & Analyzed: 12/05/05						
Ammonia as N	ND	0.2	mg/L							
LCS (B000376-BS1)				Prepared & Analyzed: 12/05/05						
Ammonia as N	1.0	0.2	mg/L	1.00		100	70-130			
LCS Dup (B000376-BSD1)				Prepared & Analyzed: 12/05/05						
Ammonia as N	1.0	0.2	mg/L	1.00		100	70-130	0	20	

Phosphate in Water

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B000414 - NO PREP										
Blank (B000414-BLK1)				Prepared: 12/14/05 Analyzed: 12/15/05						
Phosphate	ND	0.20	mg/L							
LCS (B000414-BS1)				Prepared & Analyzed: 12/15/05						
Phosphate	2.74	0.20	mg/L	3.00		91	70-130			
LCS Dup (B000414-BSD1)				Prepared & Analyzed: 12/15/05						
Phosphate	2.91	0.20	mg/L	3.00		97	70-130	6	20	

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference

Analytical Sciences
P.O. Box 750336, Petaluma, CA 94975-0336
110 Liberty Street, Petaluma, CA 94952
(707) 769-3128
Fax (707) 769-8093

CHAIN OF CUSTODY

LAB PROJECT NUMBER: 512401
WINZLER & KELLY PROJECT NAME: Mani
WINZLER & KELLY PROJECT NUMBER: 023430500/.32002

CLIENT INFORMATION

COMPANY NAME: WINZLER & KELLY CONSULTING ENGINEERS
ADDRESS: 495 TESCONI CIRCLE, SUITE 9
SANTA ROSA, CA 95401-4696
CONTACT: Pon: Questions; Sonya: Results
PHONE#: (707) 523-1010
FAX #: (707) 527-8679

TURNAROUND TIME (check one)

MOBILE LAB ____
SAME DAY ____ 24 HOURS ____
48 HOURS ____ 72 HOURS ____
5 DAYS ____ NORMAL X

GEOTRACKER EDF: X Y ___ N
GLOBAL ID: T0609700725

COOLER TEMPERATURE
Blue Ice °C
COC
PAGE 1 OF 1

ANALYSIS

ITEM	CLIENT SAMPLE I.D.	DATE SAMPLED	TIME	MATRIX	# CONT.	PRESV. YES/NO	TPH/GAS/~~BTEX~~ EPA 8015M/~~8020~~	TPH DIESEL / ~~MOTOR OIL~~ EPA ~~8015M~~	VOLATILE HYDROCARBONS EPA 8260B (FULL LIST)	BTEX & OXYGENATES ~~+ 1,2 DCA & ETHENGERS~~ EPA 8260B	OXYGENATED FUEL ADDITIVES EPA 8260M	CHLORINATED SOLVENTS EPA 8010 / EPA 8260B	SEMI-VOLATILE HYDROCARBONS EPA 8270	TRPH / TOG SM 5520F / EPA 418.1M	PESTICIDES / PCB'S EPA 8081 / 8141/ 8082	Ammonia Nitrogen	Nitrate	Nitrite	Total Phosphate	COMMENTS	LAB SAMPLE #
1	MW-2	12/13/05	11:46	W	6	Y/N	X	X		X						X	X	X	X	512401	-01
2	MW-6		12:13		7																-02
3	MW-4		12:20		7																-03
4	MW-5		12:29		7																-04
5	MW-1		11:55		7																-05
6																					
7																					
8																					
9																					
10																					
11																					

SIGNATURES

SAMPLED BY: Pon Xaysaeng

RELINQUISHED BY: P. Xaysaeng
SIGNATURE
12/13/05 DATE
16:43 TIME

RECEIVED BY LABORATORY:
SIGNATURE
12/13/05 DATE
16:47 TIME

Appendix D
GeoTracker Upload Verifications

Electronic Submittal Information

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UPLOADING A GEO_REPORT FILE

YOUR DOCUMENT UPLOAD WAS SUCCESSFUL!

Facility Name:	MANI, RICHARD
Global ID:	T0609700725
Title:	Quarterly Groundwater Monitoring Report, 2nd Qtr 2005
Document Type:	Monitoring Report - Quarterly
Submittal Type:	GEO_REPORT
Submittal Date/Time:	9/9/2005 2:15:43 PM
Confirmation Number:	6582532584

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Electronic Submittal Information

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Your EDF file has been successfully uploaded!

Confirmation Number: 3306735694
Date/Time of Submittal: 1/17/2006 4:53:49 PM
Facility Global ID: T0609700725
Facility Name: MANI, RICHARD
Submittal Title: 3rd Quarter 2005 EDF Report 5093013
Submittal Type: Additional Information Report

Electronic Submittal Information

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Your EDF file has been successfully uploaded!

Confirmation Number: 2079455018
Date/Time of Submittal: 1/17/2006 4:59:17 PM
Facility Global ID: T0609700725
Facility Name: MANI, RICHARD
Submittal Title: 4th Quarter 2005 EDF Report 5121401
Submittal Type: Additional Information Report

Electronic Submittal Information

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UPLOADING A GEO_WELL FILE

Processing is complete. No errors were found!
Your file has been successfully submitted!

Submittal Title:	**4th Quarter 2005, Well Measurement File, Mani Site**
Submittal Date/Time:	**12/27/2005 11:58:16 AM**
Confirmation Number:	**8495625138**

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